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# ***JPRS Report***

## **Soviet Union**

### ***Economic Affairs***

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# Soviet Union

## Economic Affairs

JPRS-UEA-89-021

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17 JULY 1989

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## ECONOMIC POLICY, ORGANIZATION, MANAGEMENT

### NEP Experience Instructive for Present Restructuring

18200323 Moscow SOTSIALISTICHESKAYA  
INDUSTRIYA in Russian 15 Apr 89 p 3

[Interview with Yuriy Goland, Candidate in Economics, by P. Filippov: "What NEP Teaches Us" under "Our Pedigree" rubric; first paragraph is a boldface introduction]

[Text] While assessing today's problems, we increasingly turn our gaze to the past. Many compare the current situation to the period of the shift to New Economic Policy (NEP). Are there similarities, and if so, have we been able to learn all the relevant lessons to help perestroika? NEP, which replaced war communism, was a revolutionary shift in the party's policy. The shift occurring before our own eyes is no less revolutionary. Let us recall why the party chose to make so decisive a shift. This was our first question to Yuriy Goland, Candidate in Economics.

[Goland] The general reason for that shift is easy to define. The policy of war communism had led the country into a dead end. An acute economic and political crisis erupted. By February 1921, economic life had effectively come to a halt and the political mood among both peasants and workers was, I am not afraid to say, hostile to the authorities.

[Question] How did it manifest itself?

[Goland] Peasants' protests, which had occurred before as a result of forced confiscations of foodstuffs, were becoming more and more massive. A new wrinkle was that workers' attitudes toward soviet power had grown worse. This manifested itself in mass disturbances.

[Question] So the party was concerned. Was it the entire party?

[Goland] Ways to resolve the situation had been discussed before. Some thought that the difficulties were caused not by the party's policy but fomented by enemies and counterrevolutionary forces. They proposed to tighten the screws even further and find the guilty. Others understood that a different solution had to be found. But which one? On February 8, 1921, at the meeting of the Politburo, Lenin proposed a shift from seizures to a food tax.

One of the difficulties was that both SRs and mensheviks had proposed the same solution some time earlier. Representatives of those parties, in late December 1920, at the 8th Soviet Congress, openly advocated this idea. At the time it was rejected. Now, however, the party had to admit that it was in the wrong.

[Question] And how did its rank-and-file view this proposal?

[Goland] The decision to shift to the food tax at the 10th congress was made unanimously. Locally, the men took it differently, however. For instance, Kharkov revolutionary committee secretary Ivanov reported to Lenin in April that "many local employees instinctively sabotage this decision." However, this instinctive sabotage did not last long.

It was harder to overcome resistance to shifting industry to self-financing which began some time in the summer of 1921. Many industrial leaders, who worked in managerial bodies and were used to giving orders, found it very difficult to accept enterprises' autonomy and trade relations based on payments. They thought that the new policy would fail. As newspapers wrote at the time, they "waited from the height of their bureaucratic equanimity for the new policy to fail in practice."

[Question] This is very similar to the way economic managers behave now.

[Goland] Such direct analogies are probably wrong. However, psychologically, the behavior of many of today's leaders is in some ways similar. During NEP, the party, to use a modern expression, had to conduct considerable work to overcome such attitudes. How did it do it? Life itself helped. Primarily, it was the success of NEP. Today, too, there would have been fewer dissenters had perestroika produced tangible results faster.

[Question] What was the reason for NEP's rapid success?

[Goland] In the 1920s, the situation was as follows: peasants were no longer required to supply a given quota of foodstuffs and small private enterprises were allowed to prosper. Once trade was freed and came alive, all reserves were put to use. Goods appeared. This, however, was only at the initial stage.

As to large state enterprises, they did not improve their work right away. Heavy industry remained unprofitable for a long time. Changes occurred only in sectors that had been shifted to full self-financing immediately. Take, for instance, the linen factory trust. It had 17 plants that shifted to the new system in the summer of 1921. Soon they considerably improved the state of affairs in this area.

Interestingly, qualified specialists were quickly drawn into the new enterprise. The idea of a linen trust was first advanced on the pages of the newspaper EKONOMICHESKAYA ZHIZN by one Nolde, a famous linen businessman before the revolution. Who was that Nolde? He was a baron and by no means a supporter of communism. Yet, he loyally collaborated with soviet power. So, he proposed to set up a self-financing trust, one that would be fully independent and bear all responsibility. Many an advocate of the old system attacked his

idea saying that it should not be carried out. But Lenin supported Nolde, and some 3 months later the trust was in operation and was very successful.

[Question] Who were NEP's most active supporters?

[Goland] Broad masses of workers and peasants supported the reform. Mass support was especially strong in the beginning, as everybody felt real improvements. Peasants were given relative freedom. Workers, too, saw real improvements, especially in food supply.

In truth, not everything was going smoothly. There were periods of relative worsening, and then supporters of the old system would immediately start claiming that it was all NEP's fault. Yet, in the early years, difficulties were usually overcome quickly.

[Question] What was the role of experts in such well-known achievements of the period as monetary reform, for example?

[Goland] Lenin put specialists, including non-party members, into managerial posts. Monetary reform was one result of this policy. Key role in its implementation was played by two individuals, the member of the State Bank's board of governors, former czarist minister Kutler and the head of the foreign currency department of the People's Commissariat of Finance, economist Yurovskiy. Kutler had an enormous experience in economic management, having participated in the implementation of the monetary reform at the end of last century. He worked together with Professor Yurovskiy, an expert in the field of currency circulation. Teamwork by a practical specialist and a theorist ensured the reform's success.

[Question] How does science participate in the development of radical economic reform today?

[Goland] I want to cite one example. Last fall, academicians Kudryavtsev and Aganbegyan spoke at the general meeting of the Academy of Sciences. They raised the question of science's participation in preparing decisions related to perestroika and pointed out that in many cases its suggestions are rejected.

I would also like to mention another issue. For many years before perestroika, our economics was an unneeded science. The result is that it has no answers to questions that arise today. In addition, we do not fully tap the abilities of all scientists. A small circle of economists does take part in decision-making, but broader circles of economists do not. It would be useful in my opinion to set up ad-hoc working groups and organize a competition for ideas on overcoming the crisis.

[Question] As far as I know, this is how it was during NEP.

[Goland] Indeed, and I will mention only one example. The 1922 budget was prepared based on directives passed in November of the previous year, when Lenin was still active. (In December he was ill and stayed in the country.) The data was prepared by the Central Committee's Finance Commission headed by Preobrazhenskii. The budget was put together and approved, but then it transpired that it completely failed to take reality into account. The situation had changed drastically in January and the budget was useless; it had to be annulled a month later. Those who had developed it were not overly concerned. Yet, Lenin felt guilty. Later, Rykov described Vladimir Ilyich's reaction: "He had never felt so awkward as when he signed some nonsense instead of a budget and put it before the All-Russian Congress of Soviets to be approved." Lenin was embarrassed for his mistake, even though he was ill at the time and had no time to check what others had written.

When those who make decisions do not feel responsible, who will want to listen to experts? In the early years of NEP, there was inner responsibility, to say nothing of the responsibility before the people, and at that time leaders listened to experts. Once the opinion prevailed that things are seen better from the top, there was no need for experts any longer.

[Question] And yet, NEP demonstrated the advantages of the trade system. Why was it rejected?

[Goland] Indeed, NEP did demonstrate its potential and in a few years pre-war production levels were attained. But when more complex issues of industrialization came to the fore, managerial organs began to make serious errors in economic policy, paying no attention to warnings of leading economists.

Starting in mid-1926, the policy toward agriculture and private trade began to restrict their development. Funds were being redistributed in favor of industry. The "price scissors" problem became more acute: industrial goods which villagers were buying were expensive while wholesale prices for agricultural goods were set low. Prosperous peasants were severely taxed. They no longer could buy tractors and were deprived of the right to vote. The supply of goods to private trade was sharply curtailed, as was financing for it.

This was combined with increased administrative regulation which ignored market forces. As a result, starting in 1927 bottlenecks developed in the trade of agricultural and industrial goods; shortages of both industrial goods and foodstuffs became more acute.

Whenever serious economic difficulties arise, there are two options: to make certain policy adjustments or to change policy drastically. The majority of the country's leadership with Stalin at the head chose the latter option. His opponents in the Politburo—Rykov, Bukharin and Tomskiy—were unable to defend their position. The

main cause of their defeat was in my opinion the fact that the situation that had developed by 1928 in the party excluded the possibility of democratic expression of different viewpoints.

[Question] What are the chief lessons of NEP?

[Goland] Not claiming to provide an exhaustive and thorough answer, I want to mention several points. The NEP experience shows that the market system can function successfully in a planned economy. But this can only happen if central authorities make competent decisions which take into account the conditions of goods production and the interests of various social groups. And of course competent decisions depend on the state of economic science and its ability to put forward sound ideas.

Democratization of the country in general is a necessary condition for the successful development of the economy. We say that the human being is the main productive force. But what is a human being? He is not a thoughtless agent carrying out others' orders but someone able to take initiative, act and participate consciously in collective labor.

I especially want to stress the importance of democracy within the party. The NEP experience shows that the level of democracy inside and outside of the party is closely linked and evens out in time. The current course of the party to combine economic and political reform aims to create all the necessary conditions to overcome the difficult situation in which we now find ourselves.

#### **Future of Socialist Economic Management Forms Examined** 18200387

[Editorial Report] Moscow NOVYY MIR in Russian No 3, March 1989 publishes on pages 190-212 a 15,000-word article by S. Menshikov (not further identified) entitled "The Economic Structure of Socialism: What Lies Ahead?" The article examines some of the flaws of the present socialist system and suggests changes that must be implemented in order for socialism to prove its viability.

Menshikov reviews economic management in capitalist countries. He notes that capitalism has demonstrated greater economic efficiency by adapting to changing conditions. In some cases, unprofitable enterprises were placed under government ownership, but managers were given full control until the enterprise became profitable again, at which time it returned to private ownership. He points out that in recent years there has been a trend toward smaller enterprises which are able to assimilate new technologies more rapidly. In all, "capitalism, as a rule, did not prohibit any forms of management which proved their viability and economic efficiency."

Menshikov then outlines some steps that must be taken, despite opposition from "socialist puritans." Among these are the creation of small-scale private enterprises, which "can be integrated into a socialist economy," and the expansion of leased and cooperative forms of property ownership. The author views the future of the socialist economy as a "combination of various forms of state, cooperative, and private enterprises," all of which are necessary to boost economic efficiency and to promote competitiveness. Success in foreign markets and higher labor productivity are necessary, "if only to show that socialism can endure, survive, and prove its viability."

#### **Readers Suggest Changes to State Acceptance System**

18200333 Moscow SOTSIALISTICHESKAYA  
INDUSTRIYA in Russian 27 Apr 89 p 2

[Letters to the editor and editors' general response: "Readers Continue the Discussion Under the Title 'Two Views of State Acceptance'"]

[Text] Two letters were published under the headline given above in this newspaper on 18 January. The editors have received several hundred responses concerning the present state of the state inspection service. Today, we are publishing several of them.

#### **Let the Customer Provide the Financing**

We confess to being surprised by the talk about the unacceptability of state acceptance for the radical economic reform.

Could various organizations of the consumer society type safeguard the consumer, poor devil, against the dictate of the monopolies today? No, these societies still have not gotten on their feet. Yet it is possible—without any additional outlays, to use state acceptance for this purpose. Vesting it, of course, with the power to represent the customer. The client, it seems to us, will be happy to take over the financing of its protectors. So little money would be required to pay for the difficult work of the state acceptance personnel by comparison with the losses from rejects, repairs, and so on!

I. Gurevich, R. Kalmanovich, Representatives of state acceptance at the NPO "Moldavgidromash," Kishinev

#### **When a Shortage Is Rampant**

State acceptance was instituted when there was a rampant shortage in the country of everything, including "rejects" (that is what products that do not meet the world level are now called). And since almost all of our output fits that category, should we stop working for a year or 2? Commit ourselves to updating the technology?

As far as I am concerned, I prefer to buy a television set or automobile today, not in a few years, even when I know that it does not meet international standards. As for the world level.... I think that for another 10 years or so an article marked "Made in Japan" will be worth 10-15-fold more in my estimation than the same thing labeled "Passed by state acceptance."

Since no one can evaluate product quality better than the consumer, I propose that legislation be adopted making the manufacturer responsible for its product. So that at first repairs would be made at his expense within the warranty period—1, 2, or 3 years. And in future—this would apply over the product's entire service life. To avoid red tape, fix the time for correcting the defect, say 1 month (later it will be shortened automatically). Incidentally, Henry Ford first applied this method at his plants.

I. Prikhodko, Lead designer of the Borovichi Wood-working Machine Plant, Novgorod Oblast

#### Give up the Technical Inspection Department

Over a period of 2 years, we have come to the conclusion that there is no point in having a double staff of inspectors. The service itself is necessary, but in a different form. We decided in the council of the work collective to make a test, to conduct an experiment on ourselves. The state acceptance council also gave its consent. The ministry did not object. So, collecting all the prescribed documents, we and the director of state acceptance went to see V. Migachev, chief of the Main Administration for State Acceptance of USSR Gosstandart. We were given a hostile reception. We left the papers with him, requested an official reply (refusal). There has been no answer, and I think there will not be. Perhaps your discussion will help us to continue the experiment?

The gist of it is as follows. To get rid of an unnecessary unit—the OTK. State acceptance, however, remaining a subdivision of Gosstandart, would conclude a contract with the plant to perform the operations of checking the production process and product quality. It would become an independent juridical person, it would open its own giro account, and the Law on the State Enterprise would be extended to it.

We would determine the value of operations at fixed rates, we would transfer the money to the giro account of state acceptance. Every basic production worker would be given his personal stamp, we would amend the bonus regulation to sharply increase financial liability for rejects. Fines would be paid to the consumer for defects discovered out of the giro account of state acceptance!

As it is plain to see, our system makes it possible to get away from material irresponsibility for rejects, which up to now has prevailed in practically every production operation. This would be a benefit to everyone. To the

consumer because product quality is improved. To the plant because it gets additional output produced by a portion of the former staff of the OTK for the same money with which it previously financed the OTK. State acceptance also benefits very directly—by becoming a cost-accounting entity in its own right, its collective can apply more up-to-date methods in the organization of work and increase their wages. The fine paid to consumers would become the natural limit on that process.

But the state budget would gain more than anyone else. For a start, it would save 90,000 rubles for 1989 on state acceptance in our plant alone. The state would receive from state acceptance itself transfers from profit and the charge on labor resources amounting to approximately 10,000 rubles. Multiply this amount by the 2,200 state acceptance units that now exist, the benefit would be sizable. And the benefits from higher product quality cannot be measured in rubles alone.

A. Titkin, Director of the Bolokhov Machinebuilding Plant, Tula Oblast

#### Gosstandart Is Also Expendable

State acceptance now remains the only element of the command-administrative system that is still resisting the universal process of technical stagnation. But there are a number of essential shortcomings in its performance.

First of all, the subordination of state acceptance. Is the problem of quality in our country less important than, say, customs matters? Yet the customs service has been removed from the oversight of a department and made directly subordinate to the USSR Council of Ministers, while they created state acceptance in the bosom of Gosstandart! However often we repeat that this is extradepartmental inspection, it will continue as before to represent Gosstandart, i.e., to protect the interests of the standard rather than the interests of the consumer.

The first thing that needs to be done in my view is to rip state acceptance from the innards of the state committee and make it subordinate if not to the Council of Ministers, then in any case to the USSR People's Control Committee, without, of course, making it subordinate to local authorities. And if the staff of state acceptance units were to include an economist and financial inspector, then people's control, and through it everyone else, would obtain a mass of interesting and, most important, truthful information about the health of our economy. It finally has to be furnished information about what is referred to as the world level.

All of this will close the gap between the consumer and the manufacturer, and it will also make it possible in the near future to reorient state acceptance toward cost-accounting consulting activity aimed at application of technical and organizational innovations. To be sure, consultants are needed only when the market requires quality.



R. Radushkevich, Representative of state acceptance at the Chekhov Power Machinebuilding Plant, Moscow Oblast

#### Lines From Letters

The effort at state acceptance reminds me of the well-known period of the campaign against alcoholism: the ukase was issued, alcohol sales were curtailed, the police began to chase the drunks so that they would not be seen. In the same way, we have shoved the problem of quality in a corner with a pompous campaign. After all, we are setting things to rights in an economy that belongs to yesterday!

Yu. Vilchinskiy, Shop chief, Kirovograd Oblast

Production cannot do without a scrupulous staff of inspectors. It might be called state acceptance—the name is not the point, but then it ought to incorporate a part of the staff of the OTK, and instead of unlimited rights to review all and every effort concerning quality, it should be left a single duty: to achieve unconditional fulfillment in production of the requirements of the technical documentation.

V. Voloboy, Kherson

...The greatest harm to our work, we think, is done by the questions raised periodically in the press: Is state acceptance necessary? Does the collective like it or not?

V. Malyshev, Director of state acceptance, V. Popova, Secretary of the party organization of the state acceptance component at the PO "Tasma," Kazan

#### Editors' Comment

The letters we have published reflect rather accurately the distribution of the large amount of mail on state acceptance. It does not contain very much indiscriminate abuse or praise. There are far more demands for reform of the state inspection service and specific proposals about what it should be. As we see, both those militating "for" state acceptance and those who are "against" are inclined to the idea of reform. Which means that social consciousness has become mature enough for changes. Has Gosstandart become mature enough for them?

### INVESTMENT, PRICES, BUDGET, FINANCE

#### Reader Argues Against State's Repayment of Early Domestic Debt

18200303 Moscow SOTSIALISTICHESKAYA  
INDUSTRIYA in Russian 2 Apr 89 p 2

[Article by V. Klyatyshv, candidate of economic sciences: "Who Owes Whom?"]

[Text] These days many people say that we should return to the villages the money which we borrowed from them during the years of Soviet power. I disagree for the

following reasons. We borrowed money from the countryside for the most part only during the period from the end of the 1920's (the beginning of collectivization under Stalin) to the middle of the 1950's (the beginning of N.S. Khrushchev's reforms). That is, over the course of approximately 25 years. From the middle of the 1950's up to the present time we paid back these debts: we invested considerable resources in agriculture. And often to the detriment of industry and the social sphere!

This latter period dragged on up to and through all the years of stagnation, and it continues today. Hundreds of billions in investments, increases in purchase prices up to the point where it is more advantageous to buy goods abroad than from our own countryside, the writing off of colossal debts in credits... And the investments in the Ministry of Land Reclamation and Water Resources and the development of the Non-Chernozem Zone and "superior" chemistry have nothing to do with agricultural expenditures? Economics prove otherwise. And in the city, industry is in a crisis state. The city has not only paid its debts to the village, but has impoverished itself in the process. Compare, for example, the wages of an engineer in industry to those of an agricultural engineer, or a factory worker's wages to those of a machine operator or a dairymaid on a collective farm, etc. The city-dweller's wages will be substantially lower than the country-dweller's. The city-dweller cannot even dream of buying for his apartment what the country-dweller routinely owns in his home. However labor productivity in industry lags approximately 1 and 1/2 times behind that of the advanced countries; in agriculture the shortfall is 3 to 10 times and more. So who owes whom?

But that is not the only issue. Looking at the bottom line, all these transfers of funds benefited neither the city nor the village in the end. As a result the whole economy—both industry and agriculture—fell into a state of crisis, and even now there is less improvement than we would like to see.

Why is it happening this way? It is because having started down the path of perestroika we are not implementing consistently and decisively those reforms which might give the most significant results. In industry that means the development of economic accountability under self-financing conditions and a fundamental reorganization of management.

In agriculture the analogous objective is to convert all the collective and state farms over to economic accountability and self-financing, to dissolve unprofitable farms and offer the land up for contracting and leasing, or to develop private farming—that is, to sell the land to those who work it. And in agriculture, as in industry, the most important task is to liquidate the centralized bureaucratic management system. The village does not need any further injections of budgetary resources for its development; indeed, they will not help any more than

they have helped already. Today as we begin to put into practice the resolutions of the Plenum of the CPSU it is especially important to realize this.

We must get rid of stereotypes. No one owes anyone anything! The cities and the countryside both have problems, and we must improve our position together, in concert, by developing initiative and socialist enterprise, and by radically reconstructing production relations across the whole economy.

## REGIONAL DEVELOPMENT

### Regional Autonomy Does Not Insure Industrial Efficiency

18200347 Frunze SOVETSKAYA KIRGIZIYA  
in Russian 20 Apr 89 p 2

[Article by V. Kumskov, deputy director of the KiSSR Scientific Research Institute of Economics and Planning, dr of economics: "Independence for the Sake of Efficiency. Regional Khozrchet: At the Crossroads of Opinions]

[Text] The "General Principles of the Restructuring of the Management of the Economic and Social Sphere in the Union Republics on the Basis of Self-Management and Self-Financing," which have been submitted for nationwide discussion, are a new and completely natural stage of the continuation and development of the radical economic reform that is being carried out in accordance with the decisions of the June (1987) CPSU Central Committee Plenum. Khozrchet and self-financing, which are now being introduced in enterprises, organizations, and associations, without a doubt, should be extended to territorial management—to the economics of the republic and the regions of the country. This will make it possible to make fuller and more effective use of the factors and stimuli of the progressive growth of the socialist economy that are embodied in the reform.

In the discussion of republic khozrchet, which developed practically at once after the 19th All-Union Party Conference, the question of the sovereignty and independence of the republic in the matter of the management of the national economy found on its territory has become one of the basic and even main questions. The Estonian scholars, who have set the tone of the discussion, reason approximately as follows: For genuine sovereignty and independence it is necessary for the republic to have ownership of the land and its wealth, the forests, waters, air space, and all objects of production, economic activity, and socio-cultural and consumer designation, that is state (nationwide) ownership must be replaced by national republic ownership. From this it follows that the republic must have its own separate budget, which is not part of the all-Union state budget, its own national currency, and the absolute independent right of output for the world market and the possibility of implementing economic relations with the Union and other Union republics only according to the principle of

commodity-money equivalence. In these conditions, the republics (we are speaking primarily of the Baltic republics) will, as it were, be able to effect a genuinely effective development of their economy, supply their population fully with food products, consumer goods, and various services, and to free themselves from the dependence on republics and regions of the country that are working inefficiently.

In all of this, there is, of course, the correct and valuable idea that the expansion of the economic independence of the republic should be realized in the interests of increasing the efficiency of its economy. It is another question whether this idea can be realized through the kind of independence that breaks the unity of nationwide socialist property and the all-union economic complex of the country and leads to complete isolation and separation of the republic economy.

They perceive efficiency in seeing to it that the republic is not burdened and infringed by anything on the part of the Union and the other republics, that it itself is in control of the entire economy on its territory. In other words, they want centralized state control to be replaced by republic control. But this still does not produce and cannot produce high efficiency. The meaning of the reform, I am convinced, does not lie in this replacement, but in seeing to it that the most appropriate and most favorable conditions for the work of enterprises, organizations and associations are created in accordance with the demands of the commodity-money market.

They say that we must turn to the world market, since on it you can buy everything you like, while in our market everything is in short supply and it is impossible to purchase anything freely, without funds and limits. However, they forget that to deal with the world market is not so simple even for our entire country, which has at its disposal enormous and the most diverse resources. And all the more so, for an individual union republic, this task is after all downright beyond its strength if it has extremely limited initial resources of energy, raw material and materials or a total lack of them, if the possibilities for the export of competitive products to foreign countries are insignificant, and if freely convertible foreign exchange is not available.

Many of our republics are developed thanks to the fact that they have the possibility of satisfying fully or to an overwhelming degree the needs of their national economy for oil products, metal, chemical products, timber, various types of machines and equipment owing to intra-union deliveries. Some republics, including the Baltic republics, attain good results in light industry thanks to the use of cotton, wool, leather, sheepskin-fur, and other raw material received from Kirghizia, Uzbekistan, Turkmenistan, Tazhikistan, Kazakhstan, and other regions of the country. If everything would have been obtained on the world market, it would be necessary to try to find and invest considerable foreign exchange or to get into burdensome debt.

We cannot ignore and underestimate the advantages of nationwide socialist ownership. It guarantees efficiency already by the fact that it creates its own enormous and essentially unlimited socialist market, in which enterprises, organizations, and associations, republics and regions, can freely develop their economic activity and attain progressive economic results.

For a republic, the first and main market must be its own republic market. It is precisely this idea, in our view, which is embodied in the important expansion of the sphere of republic management of the economy that is being planned. A large complex of branches of the national economy will come under direct republic management. The share of enterprises of republic authority in the industry of Kirghizia, for example, will constitute 70 percent of the total production volume. But this pertains to the enterprises and branches of the national economy which work basically for the republic and are oriented to the satisfaction of the demands of its national economy and population. For them, the republic market is the most important stimulus and motor of efficient development.

All the sectors of the agroindustrial complex henceforth will come under republic management. And for these sectors, there will be no more important tasks than to provide the population of the republic with food products. Effective demand for these products is very great and comes not only from the population, but also from schools, hospitals, kindergartens, day nurseries, and many other institutions of the social sphere. The republic market is in acute need of being saturated with meat, dairy, fish products, vegetables, fruit, and all sorts of foods. One only has to give as many products as possible in the best commodity form, supply them as soon as possible and as close as possible to the consumer, and create a maximum of conveniences for the buyer—and then the farmers and producers and the entire republic as a whole are guaranteed large incomes and great possibilities for reliable and effective self-financing. Light industry especially will become a republic industry. For the products of its numerous branches, considerable incomes can be earned in its own market if it will fill it in large quantity with durable and attractive fabrics, high-quality and modern types of clothing, footwear, knitted wear, and other consumer goods needed by the population.

And the construction materials industry? In going over completely to the republican basis, does it not have enormous possibilities for efficient growth and continuous increase of income, working for its republic market? Brick, cement, slate, cement panels and blocks, and various other building materials—all of this is needed like air, is demanded increasingly by enterprises, organizations, kolkhozes, sovkhoses, cooperatives, and, of course, the population. Money is available, the buyers are prepared to pay, only make available these materials—and large amounts of money can be earned and netted.

Republic authority is not an obstacle to the wider sphere of enterprising activity. If the agroindustrial complex, the branches of light industry, and the construction materials industry will be in position not only to satisfy the requirements of their market, but also to go with their products to the markets of other republics and regions of the Union and foreign countries, they can always do so. This pertains to all industries going into the sphere of republic management.

To take, if only, the hotel industry. An enormous need for hotels is characteristic not only of Kirghizia, but also of all other republics and regions of the country. If we approach this problem seriously, as they say, with a commercial grip, with an exemplary organization of conveniences, comfort and service, and thus create a powerful hotel association with a specialized planning and design institute, then this association could develop a network of hotels not only in Kirghizia, but also in many cities of the country, let us say in Moscow, Leningrad, Kiev, Riga, Tallinn, and others. In terms of the scale of its activity, this republic association would, in essence, begin to have an all-union character and would earn income for the republic on the market of the entire country.

But management should come from the republic, not as previously from the center, and in a completely different way: There should be no dictation of what to produce and how to manage, but instead an atmosphere should be created for the efficient management of the enterprises, organizations and associations being operated, as well as their greater adaptation to the conditions of work for the market.

The republic can at the local level, on its own territory, search for additional valuable resources, organize the production of necessary equipment and of all conceivable appliances and convenient practical packaging, as well as the construction of small, economical potatoe-vegetable-fruit depots and processing plants in the kolkhozes and sovkhoses. It is in the position to create an efficient transportation conveyor for the removal of the harvest from the fields, an extensive network of pavillions and vendors' stands for the efficient sale of products, the more intensive processing of raw material and the utilization of wastes, planning and design organizations, and model workshops for the creation of the newest types of consumer goods, and in general to do a great deal that is useful for the provision of producers and consumers with all conveniences and all that is necessary. Maximum use should be made of these possibilities.

And still another important function of management, which, in my opinion, deserves maximum attention. It should be predetermined ahead of time, and the producers should be oriented, what products, in what quality, and on what scale the market needs in the period ahead. For to work at random is impossible. In essence, this function is now not being carried out. But in the future it

will not be possible to cope without it. And for this reason it is necessary to create special organs or subdivisions for the study of trends and the demands of scientific-technical progress, of new fashion trends, market conditions, the needs of the national economy, and the requirements of the population.

The significant expansion of the independence of the republic in the management of the economy and the social sphere on its territory is already almost a reality. And we must try to achieve, of course, that it proves itself through high efficiency of economic and social results.

### **General Principles Draft Vague on Distinction Between Republic, 'Region'**

*18200351 Kishinev SOVETSKAYA MOLDAVIYA  
in Russian 13 Apr 89 p 3*

[Article by A. Lazarev, academician of the Moldavian SSR Academy of Sciences: "Weighing Each Line"]

[Text] The draft of the USSR Law, passed in a nationwide discussion, "General Principles of Restructuring the Management of the Economic and Social Sphere in the Union Republics on the Basis of Expanding Their Sovereign Rights, Self-Government and Self-Financing," is an important step in the practical work of carrying out the resolutions of the 27th CPSU Congress and the 19th All-Union Party Conference. The political, social, economic, cultural and national significance of this bold law, innovative in the theoretical respect, is not only acquiring an intrarepublic or intraunion nature, its repercussions go far beyond the limits of our country. This document comes forth as a brilliant, irrefutable and effective factor of restructuring in the sphere of democratization and glasnost in public and economic life, directed toward improving interethnic relations in the USSR and toward the expansion and strengthening of the Soviet state federation.

That is the justification for the sincere wish of each Soviet citizen and representative of any ethnic group or nationality of the USSR that the Law discussed here should take on the maximally possible and expedient sum of the principles and theses directed toward a true guarantee that the union republics of the USSR possess rights and possibilities within the limits of their territory to true power in the oblast in the economic and social sphere. It is equally rightful to come forth with the demand that the text of the Law is completely free of unclear or obscure expressions and formulas, of omissions and ambiguities.

Given all of its high and significant qualities and merits, the text of the published draft is not free of a number of shortcomings and omissions, some of which are major. I am expressing only one comment and desire, which, it seems to me, is essential and basic.

Let us turn our attention to the cardinal factor that, in the actual title of the draft of the Law under discussion, it is a question exclusively of the union republics of the USSR and of the expansion of their sovereign rights in the sphere of management of the economic and social sphere. Consequently, the subject whose sovereign rights are being expanded is only the republic and no one else.

After this postulate it is at the very least strange and incomprehensible that the text of the draft of the Law, along with the concept "union republic", frequently makes use of the concept "region," which, together with the union republic, is invested with these same expanded sovereign rights. For example, Section 1 of the draft of the Law, even in its title, in some way includes not only the union republics, but also the regions. In paragraph 3 of Section 1 it is written: "It has now grown urgent to grant to the union republics and regions and legally secure new rights...". In paragraph 4 of the same section, it says: "...a substantial expansion of the sphere of independence and responsibility of the union republics and regions...", and also speaks of the self-financing and development of the "republics and regions", and of the "material-financial base of the republics and regions". A number of other paragraphs of the draft of the law are mentioned in the same spirit.

At the same time, in many of the paragraphs and sections (if not in the overwhelming majority of them) of the document under discussion, it is a question, well-founded and rightful, of precisely and only the union republics. Therefore, one cannot help but ask the question: is the term, "region," as the subject of endowment with expanded sovereign rights in the field of economics and the social sphere, included in the text of the draft of the Law consciously or by mistake? Another question arises: what meaning is applied to the concept of "region"? Finally, a third question arises: why, what reasons and arguments make it necessary to include in the text of the law such a concept as "region", moreover, endowed with the actual rights and status of a union republic?

The draft of the Law does not reveal and does not explain the meaning applied to the term "region." On the basis of the prevalent interpretation of this term, its meaning can simultaneously cover the entire territory of a union republic (for example, Moldavian Soviet Socialist Republic, Estonian Soviet Socialist Republic, Azerbaijan Soviet Socialist Republic, etc.), a group of union republics (for example, the Baltic, Transcaucasus, Central Asia, etc.), or part of the territory of a union republic (for example, the Donbass, Crimea, Far East, Urals, Transbaykal, etc.). Not one of these variants of meaningful interpretation of the term "region" gives the slightest foundation for raising a region to the level, to the rank, and especially to the status of a union republic.

It is possible that the compilers of the draft of the "General Principles..." have in mind a completely different, unique interpretation of this term, but from the

published text this meaning does not become clear, even to the most qualified reader. One thing only is clear: no interpretation of the term "region," just as none of the reasons or arguments advanced, can in any way serve as the basis or justification for including the term and the concept "region" in the text of the all-union Law on expansion of the sovereign rights of the USSR republics in the field of economics and the social sphere. This is particularly true, since the obvious misunderstanding looks like an attempt to place regions, with respect to their position and their sovereign rights, on the same line with the union republics and to give them almost the status of a union republic. Such an attempt contradicts both the USSR Constitution and the constitutions of the union republics.

There are two essential reasons for not doing such a thing. In the first place, the components of the Soviet federative state—the Union of Soviet Socialist Republics—are 15 sovereign Soviet union republics, and then the "Basic Principles..." should, are obliged to discuss and legalize the expansion of the sovereign rights of those precise and only those 15 union republics. To add or drag in to these 15 union republics any other artificial or subsidiary "organs" or "regions" is not only unconstitutional, but leads to the belittlement or underevaluation of their role and place in the all-union Soviet federative state.

In the second place, the "General Principles...", as an all-union law, cannot and should not, except for the sovereign union republics, which are the only integral components of the USSR, regulate the activity endowed by the sovereign rights of yet other artificial "regions" drawn into the union republics, for the USSR union republics exclusively can and must possess and have at their disposal this type of sovereign rights. As for regions, regardless of their nature (national-territorial, administrative-territorial or territorial-economic), regulation of their rights and obligations is fully within the competence of the appropriate Soviet union republic.

On the strength of what has been presented, I suggest that any mention of regions be completely eliminated from the text of the draft of the "General Principles for Restructuring the Management of the Economic and Social Sphere in the Union Republics on the Basis of Expanding Their Sovereign Rights, Self-Government and Self-Financing." The document under discussion would thus correspond wholly and fully to its title.

#### **Differentiated Approach to Regional Economies Needed**

18200370 Dushanbe KOMMUNIST TADZHIKISTANA  
in Russian 4 Apr 89 p 2

[Article by R. Rakhimov, member of the Tajik SSR Academy of Sciences under the "Republic and Center: We Discuss the Draft" rubric: "A New Stage in the Reform"]

[Text] "The sound determination of the areas of economic operation that ensure the effective delimitation of the

functions and objectives of management between the center and the localities is the key question in the expansion of the economic independence of the union republics and the democratization of management."

The restructuring of the country's economy and social sphere on the basis of democratization and glasnost has become an integral part of the party's policy in the current stage. Until now the economic reform has mainly encompassed enterprises and associations and branches of the national economy and was implemented vertically. The draft "General Principles for the Restructuring of the Management of the Economy and Social Sphere on the Basis of the Extension of Their Sovereign Rights, Self-Administration and Self-Financing" indicates that the union republics will now switch to chiefly economic methods of management. The economic reform is developing not only vertically but also horizontally.

The basic principles foreseen in the draft are aimed at the formation of a strong center and strong republic both through the increased contribution of each republic to the unified national economic complex of the country and by guaranteeing the comprehensive development of the economy of the republics. The necessity of extending rights was declared repeatedly in the past but the administrative command system did not allow and essentially could not implement the decisions and decrees. In the final analysis, all of the measures to extend the rights of union republics boiled down to the fact that the union administrative bodies formally coordinated the plans for the enterprises located in the territory of the given republic. In essence, there was a real narrowing of the rights of the union republics, because departmental and branch management at the union level encompassed more and more areas of the economic life of the republic. This is shown by the data on the relative share of the output of industrial enterprises that is completely under the jurisdiction of the republics. In the Tajik SSR, this share is about 8 to 10 percent. Having meager possibilities for influencing the development and utilization of the economic potential of their territory, of course, the union republics were practically left out of the resolution of urgent economic and social problems.

It is therefore important to reemphasize the fact that the outlined principles for the restructuring of the economy and social sphere of the union republic are a truly radical reform of the interrelationships of the center and republics in comparison with the existing methods. Here there is obviously no need to prove the truly revolutionary nature of the measures being taken, for they are well known to everyone who is familiar with the technology for management, planning and financing and the development of the union republic.

Certainly the practical realization of the general principles for the management of the economy and social sphere of the union republic will help in the efficient

development of its national economy. Self-administration and self-financing presuppose the extension of the sphere of independence and responsibility and a greater interest of the union republics in the efficient functioning of the territorial economy.

The expansion of the sphere of independence and responsibility is expressed, for example, in the fact that the relative share of output of industrial enterprises that are completely under the jurisdiction of the Tajik SSR in the total volume of industrial production will reach 72 to 77 percent. This is an increase of more than a factor of 10. But an analysis of the structure of industry in the republic and of the size of the industrial enterprises of union subordination shows that in its territory there is a significant number of union enterprises whose size puts them among the small and (rarely) medium-sized in the branch. They do not determine the potential of particular union ministries and therefore they remain, as a rule, outside the field of vision. Insufficient attention is being paid to their organizational, technical, technological and economic development. Hence the completely logical conclusion that **it is expedient to transfer such industrial enterprises to the jurisdiction of the union republics.**

The raising of the responsibility and interest of union republics in the increased efficiency and effective functioning of the social sphere is predetermined by the fact that their development will take place primarily through earned income. This means that the financial resources of the union republic will depend upon the financial state of the enterprises and organizations located in its territory.

It is clear from the draft that radical measures are foreseen in the restructuring of the principles for the formation of the financial resources of the union republics. This will certainly put the process of their transition to self-financing on a realistic basis. There will be a significant increase—from 2 to 20 percent—in the contribution of enterprises and organizations to the formation of the financial resources of the republics. In connection with the fact that the structure of union industry differs in the republics, however, the interrelationships between the enterprises of union subordination and the republic budget must be organized on a differentiated basis (at least temporarily) depending on the level of profitability of the enterprises. Most of the enterprises of union subordination in Tadzhikistan, in particular, are in the extractive industry. They have a low level of profitability. Therefore, the deductions of union enterprises to the budget amounting to about 40 percent of all payments from the profit of enterprises, as the draft provides, cannot have any significant influence on the self-financing of the republic. **For the period of the 13th and 14th five-year plans, as an exception for such republics as the Tajik SSR, it is expedient to set up a system under which the entire volume of payments from the profit of the union enterprises is entered in their budget.**

Over the course of many decades, the stumbling block in economic theory as well as in the practice of national economic management has been the correct distribution of

the turnover tax in the territories. The distortions do not permit a precise assessment of the magnitude of national income produced in some particular union republic. The fact is that the turnover tax is calculated at the place of the production of the final output (beginning in 1989, whereas before then it was at the place of sale of finished output). But the territorial distribution of labor and specialization of the economy of the union republics objectively dictate the predominance of raw materials branches in the industrial structure of some republics and of those producing final output in others. The draft provides for the transfer of part of the turnover tax on individual kinds of commodities proportional to labor inputs to the budgets of the union republics where the corresponding raw and other materials are produced. This, of course, is a substantial step forward on the way to the establishment of economically valid methods for the distribution of the turnover tax in the union republics. In connection with the fact that the labor-intensiveness of the final output is higher than in the initial processing of raw materials, however, the republics producing raw and other materials will be in a disadvantageous position. From our point of view, it would be more fair to distribute the turnover tax by changing the system for the establishment of prices for raw and other materials. In other words, the price for them must include the turnover tax.

It is planned to make the appropriate changes in the system for the planning of the economic and social development of the union republics. In particular, the practical realization of the technology for the elaboration and refinement of the underlying data for centralized planning—control figures, state orders, limits on state capital investments and economic standards—raises the interest and stimulates the initiative and responsibility of territorial administrative bodies in the comprehensive and efficient development of the economy. At the same time, the experience in the work of industrial enterprises under the conditions of full cost accounting and self-financing shows that the centrally established underlying data of planning hardly differ at all from previous methods of management by command. Therefore, if one does not especially stipulate the scope of the underlying data, planning will inevitably be held captive by the methods under discussion. To stimulate initiative and to raise the interest of the union republics, it is advisable to extend the control figures and state order to the output of branches of union specialization. In addition, planning, including territorial planning, must help to resolve the social questions stemming from the special features of some particular union republic. A surplus of labor is typical for us and therefore the initial planning must include an indicator reflecting the degree of involvement of available manpower resources in social production. It appears that the growth in the gross national product per able-bodied person can be such an indicator for regions with surplus labor.

The new stage in the development of the economy and social sphere of the union republics on the basis of an extension of their sovereign rights, self-administration and

self-financing predetermines a fundamental restructuring of the work of all republic administrative bodies and above all of economic departments. Planning and financing, price-setting and material and technical supply, the proportions and balance of the national economy, the saving of resources and efficient functioning of all links in the national economy, and the acceleration of scientific-technical and socioeconomic development must be resolved on qualitatively new methodological and methodical bases. Our economic departments must resolutely renounce the practice of resolving problems in the development of the republic only in accordance with the instructions and wishes of central administrative bodies.

Certainly such an approach requires the establishment of scientific bases taking into account regional, historical, national, geographical, demographic and economic features. This step, in turn, is linked with the necessity of restructuring the forms of organization and planning and the methods for integrating economic science and national economic practice as well as the economic studies themselves. The latter requires a substantial reorganization of the work of the scientific section of the Tajik SSR Council of Ministers on the improvement of the economic mechanism as well as of the republic economic society. We face very serious work, which we may not have been carrying out heretofore.

## AGRO-ECONOMICS, POLICY, ORGANIZATION

### Editorial Covers Procurements and Leasing

18240183 Moscow *FINANSY SSSR in Russian* No 5,  
May 89 pp 3-7

[Unsigned editorial: "Along the Road of the New Agricultural Policy"]

[Text] At the plenum of the CPSU Central Committee held in March 1989 an agricultural policy was worked out which will bring about radical changes in rural development, which will open up room for the initiative of the agricultural workers. Major changes in agriculture are a mandatory condition of the country's economic and social progress.

As of 1 January 1989, all enterprises and organizations in the agroindustrial complex were switched over to full cost accounting (*khozraschet*) and self-financing. Differentiated supplements to purchase prices of agricultural products have been established to guarantee that *sovkhozes* and *kolkhozes* increase their output, and nonrepayable budget financing of the following measures has been abolished: payments of supplements to purchase prices on agricultural products for farms operating at a loss and low profitability; capital investments, the maintenance of kindergartens, the covering of losses in the housing and utility sector and in the group of operations related to extracting and shipping peat; planned outlays of *kolkhozes* operating at a loss and low profitability (except for construction of on-farm roads); insurance premium compensation; and reimbursement of price differences on agricultural equipment and manufactured fertilizers.

An appropriation of 32.2 billion rubles was made to establish the differentiated supplements to purchase prices in 1989. This increased to 87.7 billion rubles the subsidy for purchases of agricultural products, and total expenditures for agriculture reached 109.6 billion rubles, as against 98.8 billion rubles in 1987.

The transition of *kolkhozes* and *sovkhozes* to full cost accounting and self-financing has had an indubitable influence toward strengthening the economics and finance of agriculture. At the same time, the establishment of differentiated supplements as a function of financial condition, profitability, and outlays for expansion of production has not made it possible for the entire economic mechanism to go into full operation. The financial prosperity of individual *kolkhozes* and *sovkhozes* still depends in large part on superior authorities: the higher the supplements they are assigned, the better their financial condition will be. The price supplements established for individual farms are on the order of 200-300 percent or even 800 percent.

At the March (1989) Plenum of the CPSU Central Committee, it was deemed advisable to build an agricultural policy on the basis of diverse forms of economic activity (*kolkhozes*, *sovkhozes*, processing and other enterprises, organizations of lessees, cooperatives, leasing collectives, peasant farms, and private farming operations), creation of equal economic conditions for them, and guaranteed assurance and full-fledged strengthening of integrative ties. Measures were drafted for radical restructuring of economic relations and management in the country's agroindustrial complex. Great importance was attributed to the program for social development of rural areas and for supply of materials and equipment to agriculture. The volume of capital investments in the 13th FYP is to rise 19 percent over the 12th, and the volume of nonproduction construction and the processing of agricultural and other products will increase 1.5-fold and road construction 2.8-fold.

It was emphasized at the plenum that the efficiency of capital investments, which have been growing considerably faster than the growth of agricultural output, has to be increased in agriculture. There are also other shortcomings in the use of material and technical resources. According to calculations of USSR Minfin, unproductive costs on *kolkhozes* and *sovkhozes* because of losses in bringing in the harvest, the death of livestock and overconsumption of feed, embezzlement and theft amount to more than 22 billion rubles. Restoration of elementary order could sharply increase the efficiency of agricultural production.

The new economic mechanism provides substantially more independence to *kolkhozes* and *sovkhozes* in planning production and procurements of agricultural products; they are not being given a mandatory order for delivery of products. They deliver products under a contract concluded with the procurement organization extending as a rule over the 5-year planning period. They sell the entire output produced over and above the amounts envisaged by contractual relations as they see fit. Procurement organizations are expected to take steps to stimulate the farms to make deliveries under contracts. In doing that, they can make use of the price system, they can guarantee product sales, they can accept products right at the point of production and centralize the out-shipment, and so on.

The use of counter sales of mixed feed and other products and assistance in supplying equipment to processing shops and subsidiary production operations is something absolutely new in the procurement of agricultural products. Procurement organizations will be given the right to encourage the sale of products under contracts representing the state order by issuing an advance against its fulfillment to the supplier farms amounting to as much as 40 percent of the value of grain and also as much as 25 percent of the value of other products envisaged by long-term contracts. USSR Agroprombank is to supply credit to the procurement organizations for this purpose.



A system of interlinked prices is being created in order to increase the operating efficiency of the agroindustrial complex under the new economic conditions; this system will make it possible for all agroindustrial production units to turn toward achievement of high end results, to strengthen the economic integration of agricultural and processing enterprises, to bring about conditions for their efficient operation on principles of full cost accounting and self-financing, and to guarantee equivalent exchange between the agricultural and other sectors of the economy. This system of prices is being introduced beginning in 1990.

A fundamentally new approach to establishing purchase prices is envisaged, one that makes it possible to guarantee high economic motivation to increase production of products in regions with favorable natural and climatic conditions. The costs involved in farming at a low level are not to be taken into account in working out the new purchase prices. Reduction of the production cost of agricultural products is viewed as the most important factor in the growth of financial resources, the strengthening of production plant and equipment, and development of the social sphere in rural areas.

The new purchase prices will be worked out on the basis of actual 1988 payments per unit output paid to enterprises converted to full cost accounting and self-financing and applied to the volume of purchases envisaged by the 5-year plan in 1990. These purchase prices must include the differentiated supplements and also supplements for sale of products to the state over and above the average level achieved in the 11th FYP. In addition, the new purchase prices include costs incurred in introducing the new forms of social insurance deductions, rent payments, and the water charge.

Provision is also made for earmarking every year a portion of these funds to enlarging the production capability and improving the social development of farms facing particularly difficult natural and climatic conditions. A list of such farms is to be approved by councils of ministers of union republics.

In order to bring about equal economic conditions for farms operating under the same natural and climatic conditions and in order to stimulate specialization, a fundamentally new approach is being taken to the setting of purchase prices. First, there is a sharp reduction in the number of price zones, which have been consolidated. Second, purchase prices uniform throughout the country are being established on food crops and grain crops (hard wheat, millet, buckwheat, peas for food, oats, rice, and corn), oilseed crops (except for sunflowers), the products of cotton growing, flax growing, and other fiber crops, tobacco, wool, raw hides, sheepskin, down and fur, and karakul-astakhkan raw materials, as well as certain products of cropping used as raw materials in manufacturing baby food. Third, differentiated purchase prices consolidated over price zones are being set on milk, livestock, sugar beets, soft wheat, rye, feed grain (except corn), and

sunflowers. Fourth, potatoes, table grapes, fruits and vegetables, and also products of their processing, including canned goods, are being sold at prices set by agreement between suppliers and consumers. Councils of ministers of union republics and ispolkoms of kray and oblast soviets of people's deputies have been granted the right to set the maximum retail prices on these products.

Thus, the new purchase prices place all kolkhozes and sovkhozes under the same conditions. The farms which use their land and other means of production more effectively will have the best financial situation. In order to equalize economic conditions, rent payments are being introduced for farms located in relatively better natural and climatic zones, and these payments are made into the budget. At the same time, kolkhozes and sovkhozes will also pay an income tax (profit tax).

The central headquarters of USSR Minfin and the minfins of the union republics, along with pricing authorities and agricultural authorities, accordingly have a big job to determine the rent payments on a differentiated basis for each farm in an amount that remains fixed over the 5-year period and is applied per hectare of farmland, adjusted for the quality of the land.

A fundamentally new feature is regulation of the difference in purchase prices of agricultural products. At the present time, the difference between the purchase prices and retail prices of agricultural products is 87.7 billion rubles. When the new retail prices are set, of course, the subsidy will be reduced and there will be an increase in the amount of compensation to the public for additional costs in purchasing agricultural products. Now, the price differences will be reimbursed on the basis of the end product, that is, not for livestock and milk, but for meat and dairy products.

The USSR State Committee for Prices, USSR Minfin, and the councils of ministers of union republics must work out and adopt simultaneously with the new purchase prices wholesale prices on the products of the processing branches of industry that will guarantee reimbursement of economically warranted expenditures to pay for agricultural raw materials, for their acceptance, storage, and processing, as well as to obtain the standard rate of profit. The rates of the subsidy or turnover tax on the end product of processing branches are to be set accordingly.

When potatoes, table grapes, and fruits and vegetables are purchased at negotiated prices higher than the maximum retail prices minus the trade discount, the price difference must be reimbursed to trade and procurement organizations out of the budget for the place where the sale is made.

A new procedure is being established to reimburse price differences related to deliveries of products to the all-union stock. Products delivered to the all-union and republic stocks on the basis of the state order are paid for

at state purchase and wholesale prices. Purchases over and above the state order are made on the basis of contracts among processing enterprises, procurement organizations, and kolkhozes.

Greater responsibility is imposed for delivery of products to the all-union and republic stocks. Union republics must reimburse the union budget the costs of purchasing in other regions agricultural products which they have failed to deliver to the all-union fund. If an additional amount of grain and other agricultural products are allocated to a union republic at its request, it must make compensation for the costs involved. This procedure for reimbursement and compensation will be established in relations with autonomous republics, krais, and oblasts.

The central headquarters of USSR Minfin and the min-fins of the union republics must accordingly draft a procedure for reimbursement of outlays to purchase products not delivered to all-union and republic stocks on the basis of the principles of regional self-financing. The responsibility of local budgets for delivery of products for local supply must also be strengthened at the same time.

Subsidy payments to processing enterprises must be made out of the resources of the respective budget governing the place where these products are consumed. This procedure will correspond fully to the transition of regions to self-financing.

The transition of enterprises and organizations to full cost accounting and self-financing requires restoration of their sound financial condition. Unequivalent exchange between agriculture and other sectors of the economy, large unproductive losses and costs have been the reasons for the large indebtedness under bank loans, 68 billion rubles of which were converted to long-term.

Together with bank institutions and agroprom authorities, financial authorities have to gain a thorough knowledge of every farm, outline ways of increasing profitability, and submit proposals for extending aid to some of them. It has to be borne in mind in this connection that many farms whose bank loans have been extended do have available money resources and surpluses of their own working capital.

The agricultural policy worked out by the March Plenum plotted a strict line toward increasing the material motivation of the personnel of kolkhozes and sovkhoses to achieve high end results. On behalf of strengthening the principles of cost accounting it has been deemed necessary for sovkhoses and other state agricultural enterprises to form a unified fund for remuneration of labor as the remainder of cost-accounting income after deductions have been made from it for the resources committed to the development of production, science, and technology as well as to social welfare purposes. Regulation of the distribution of income which sovkhoses and

other state agricultural enterprises commit to reproduction and to remuneration is to be fundamentally new. A new model, then, has to be worked out for taxing the growth of remuneration so as to motivate the farms to expand production. Until such time as the new tax system is introduced, the ratio between consumption and accumulation must be based on the stable rates set for the period 1989-1990.

The divorce of the remuneration of kolkhoz members and sovkhos workers from the end results has been the reason why remuneration of labor was higher on many farms operating at low profitability than on those that have been highly profitable. In recent years, the growth of wages has been 2 percent for every percentage point of growth of labor productivity. The numerous systems governing remuneration and bonuses have made the transition to self-financing difficult. Under a decision of the March (1989) Plenum, kolkhozes and sovkhoses are to independently determine the form and system of remuneration on the basis of the principles of cost-accounting activity of the farm's internal production structures. This is to be done in close conformity with the end results. Accordingly, beginning in 1990 present systems for remuneration and bonuses of sovkhos supervisory personnel and specialists are being abolished.

Financial authorities must take a direct part in drafting and carrying out measures to strengthen the economy of kolkhozes and sovkhoses and processing and other enterprises operating at low profitability or at a loss and to improve payment discipline. The task over the next 2 years is to get enterprises out of the red. Should the measures taken not achieve the profitable operation of enterprises, they may be reorganized or liquidated and their landholdings transferred to other kolkhozes and sovkhoses, industrial enterprises, organizations of lessees, cooperatives, leasing collectives, and peasant farms. The list of losing enterprises and organizations of the agroindustrial complex and the deadlines for performance of measures to make their operation profitable must be approved by councils of ministers of union republics.

The plenum also took up the question of leasing and lease relations in the USSR as a system of measures to improve production relations and to qualitatively update the productive forces, and it defined the organizational form for the operation of leasing enterprises, individual collectives within enterprises, as well as the family or personal lease.

The property of the state enterprise or of an association's structural unit that is being leased to an organization of lessees remains the property of the state. As for the products produced, they are the property of the lessees. Leasing collectives structure their activity on the principles of full self-support. The rent must first be paid out of the proceeds the organization of lessees realizes from the sale of its product, and then material costs and equivalent outlays are reimbursed. Depreciation, which is

taken into account in the rent, is not included in the material costs to be reimbursed. Taxes and other payments are made to the budget out of the remaining proceeds, and interest on credit is also paid.

The rent consists of depreciation for full replacement and the resources for that part of the unified repair fund that depends on the degree of the lessor's participation in the reproduction of fixed capital and also the deductions for centralized funds and the lessor's reserves. The rent does not include the sum of taxes and payments to the budget, nor deductions paid into the state social insurance fund.

Leasing enterprises independently make payments from profit and pay taxes into the budget. The size of the payments is determined so as to take into account the value of fixed capital and "own" working capital transferred under the lease, labor resources, deductions from gross income into the state and local budgets, and the volume of production resources used. It needs to be taken into account here that the sum of payments over the period 1989-1990 must be in the proportions adopted in the initial data for those years. When enterprises make the transition to leasing, strict monitoring must be organized to see that the size of the payments does not infringe on the interests of the budget.

The facts indicate that certain highly profitable enterprises are making the transition to cooperative forms of the organization of production and are increasing the remuneration of personnel by reducing payments into the budget.

The minfins of the union republics and oblast and rayon finance departments must do the work involved to establish for leasing enterprises payments into the budget so that an unjustified reduction of deductions paid into the budget does not occur.

The decisions of the March (1989) Plenum of the CPSU Central Committee also makes major changes in the system for management of agricultural production. Councils of kolkhozes and sovkhoses in rayons are being given completely new functions.

The new economic mechanism can function normally only if all of its components go into operation. Its sphere of activity must extend not only over individual enterprises and organizations, but even over entire regions of the country. That is why financial authorities must draft new pieces of legislation regulating relations of agricultural production enterprises and organizations with the budget. This must be done in close contact with bank institutions and agricultural authorities.

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## REGIONAL DEVELOPMENT

### Academician Urges Adaptation of Economic Reform to Local Conditions

18240167 Riga SOVETSKAYA LATVIYA in Russian  
14 Apr 89 p 2

[Interview with A.A. Kalnynsh by LATINFORM Correspondent T. Kovalskaya: "Let Economic Logic Operate"]

[Text] Perhaps for the first time the March CPSU Central Committee Plenum on agrarian issues did not provide specific prescriptions but proclaimed a path of radical economic reform, comprehensive development of initiative, and independent economic decisions. Academician A.A. Kalnynsh, director of the Latvian NII [Scientific Research Institute] of Economics of the Agroindustrial Complex, discusses what they may be in our republic's agroindustrial complex in a conversation with LATINFORM Correspondent T. Kovalskaya.

[Kovalskaya] Arnis Antonovich, many today are convinced that we need to begin with the restructuring of management. If, as we heard at the Plenum, Gosagroprom [State Agroindustry] has not justified itself, then how and based on what principles do you propose to reorganize the system which has existed until the present time?

[Kalnynsh] I think that any management organization must primarily fulfill so-called state functions. That is, resolve those issues which are under the jurisdiction of ministries in any state. As applied to the agroindustrial complex, these issues are land management, plant and animal disease control measures, design of economic mechanisms, and coordination of scientific work... And functions for managing production—plant husbandry, livestock breeding, agricultural service organizations, [produce] processing—must be taken away from state agencies and transferred to the producers themselves. An Agricultural Union is being established now and I think there are insufficient declarations of its functions and demands on economic agencies and the government. The optimal variant would be if the union's organizations acquire the functions of a production cooperative, that is, those which will be severed from Gosagroprom.

Production management must be structured on classic cooperative principles. For example, farms cannot handle repairs of complex equipment in their shops. We can talk about organizing service and repair using inter-farm organizations. Agricultural equipment, agrochemical, and inter-kolkhoz [collective farm] construction organizations exist in our republic now. Let the producers themselves control them. Depending on what they need from these service organizations, let them preserve or restructure them so that they become agents for the main level—the producers of agricultural products and agricultural raw materials. Let economic logic operate. This

is what the first RAPO's [District Agroindustrial Associations] intended. They proposed selective establishment of such a cooperative at the district level so that all agricultural service and [produce] processing enterprises would be subordinate to it and so that the farms themselves could manage this complex. But later, as we all know, 1982 and the Central Committee Plenum on Agriculture came along and, as a result, RAPO's were placed under the control of the state. Now the revival of the bases of real cooperation is taking place in Ventspilskiy rayon where they RAPO's and APO's [Agroindustrial Associations] and have established an agro-cooperative association. The director of one of the sovkhozes [state farms] became its chairman.

[Kovalskaya] Many forms of management have been tried in the republic, but village residents still very actively advocate peasant farming.

[Kalnynsh] Yes, there is a group of successfully operating kolkhozes and sovkhozes. People are intensively working in public production, are earning good wages, and they have minimal individual farm [plots]. A social infrastructure has developed there. There is hardly anything to worry about at such farms. But there is a large group of farms which are lagging behind or are average where only land adjoining the center is intensively utilized but the outlying land, like the prairies in Argentina, are pastureland at best. This particularly concerns the eastern rayons. I myself remember that in the past even here there was intensive crop rotation, that they grew grain, potatoes, and vegetables... Now we also need to use the freedom provided by the Plenum to organize peasant agriculture which operates independently and parallel to kolkhozes and sovkhozes here.

There is one more trend which is important for production of agricultural products—private agricultural plots. Let us say, a man works in public agriculture and wants to have not a 0.6 hectare plot of land like now, but three to four hectares and wants to grow produce not only for himself. And to provide this land is quite advantageous, for no new capital investments will be required from the state in this case and we will get additional commodity production. Luckily, the traditions of autonomous farming are still alive and well in the village—even with the current difficulties in acquiring equipment, building materials, etc., ever increasing numbers of people want to work independently.

[Kavolskaya] Nevertheless, people are talking about the need for establishing even the most elementary working conditions.

[Kalnynsh] That is the question of questions. Today all of our energy must be dedicated, not to drawing up accounts or to elaborating various figures for ensuring pretty indicators, but to creating conditions for normal management. When we talk about peasant farms, if we total up [the costs of] roads, electrical lines, telephones, and land reclamation, at government expense, these

expenditures will not only pay for themselves, but in several years will also ensure a significant portion of agricultural production growth. But the peasant needs small, highly effective equipment and there is not any. There are four specialized machine-building plants, an equipment testing station, and a design bureau in the republic. We propose to create an intra-departmentally subordinated agricultural equipment production organization based on them as rapidly as possible. A pair of ineffective operating plants could be included within this complex after we re-configure them for the needs of the village.

[Kavolskaya] As far as I know, reorganization of farm machinery manufacturing is still proceeding in accordance with the corresponding national Council of Ministers resolution.

[Kalnynsh] Yes, but matters very frequently proceed at a agonizing pace and slow rates [of change] are set forth in the resolution itself. This requires a fundamentally different solution. Like, for example, that which occurred in Leningrad? Several enterprises, including a large one like Elektrosil, are no longer subordinate to the union and established a closed [production] cycle for producing end products.

The republic must also have greater rights in managing the construction industry. We all know that there is a shortage of construction materials, especially in the village. We must conduct a review of all municipal construction and freeze those projects which we can get along without regardless of departmental subordination. This should not affect housing programs; we are talking about industrial construction. Thus we will be able to create good housing in the village, revitalize schools, and provide the whole gamut of social facilities the villager. I purposely began this conversation on constructions problems with increasing the rights of the republic. When we ourselves can establish construction norms and regulations, so-called SNIIP's [Construction Norms and Regulations], many more economical projects will spring up in the republic. Currently, enormous quantities of cement and metal are being completely unjustifiably stockpiled. The more expensive it is for the builders, the more profitable it is. We have to change the whole economic mechanism. Engineers are now analyzing construction methods used during the period between the two world wars, when many high quality buildings were built even though not much cement was used. There is still no volume concrete construction anywhere in the world like we have. It is because we also do not use enough local construction materials. And we do have them. We are finding cheaper construction variations in kolkhozes and sovkhozes where they are economically constructing buildings.

[Kavolskaya] The pricing mechanism also requires improvement.

[Kalnynsh] Yes, and in our view in a much broader sense than was discussed at the Plenum. For example, they that state food retail prices will not be changed. This means that henceforth the rural population will be forced to purchase meat at higher prices than in the city. We intended to eliminate this obvious social inequality and make decisions which would have given rural and urban consumers equal rights.

[Kavolskaya] As I understand it, conditions have been established to ensure production progresses naturally and the government is developing and adopting a number of legislative acts which should objectively ensure reform is conducted in the village. What is your institute's role here?

[Kalnynsh] Since each republic has its unique peculiarities, no legislation on a national scale can take all of these peculiarities into account. The republics need to begin making their own decisions and adopting their own laws. Our government functionaries are mainly progressive people. We are working closely with them. One example is the draft Law on Peasant Farms. I have already discussed our proposals for reorganizing farm machine building. As for prices, I think it is proper to negotiate with the center regarding the prices used for making deliveries to the union fund; the remaining pricing mechanism affecting food sales within the republic is left in its control. Estonian economists have given us an example on these issues. We have now submitted a draft to the Council of Ministers on issuing citizens of the republic a portion of their wages as checks which those people working in Latvia could use to obtain shortage goods. Depending on how the market will be filled, we can also change the percentage of checks to ordinary money. We are awaiting appropriate decisions. But I think it is important to emphasize that these problems will not resolve themselves. Remember: They not only made wrong decisions before, they also adopted business-like resolutions and laws. Only for various reasons, they did not enter into our real economic life. In short, to give people sufficiently diverse products, we need not only to embark on the proper economic path, but we also have to faithfully follow it.

#### **Lithuania: Sajudis, Farmers' Congresses Contrasted**

18240138 Moscow SELSKAYA ZHIZN in Russian  
8 Apr 89 p 1

[Article by N. Lashkevich, SELSKAYA ZHIZN correspondent, Lithuanian SSR: "Positions Or Ambitions"]

[Text] In Lithuania, two congresses for the republic's farmers were held simultaneously. The one—the Sajudis Farmer Congress, of the Lithuanian movement for perestroika and the second—the Congress of Lithuanian Farmers, all of whom support the platform of the republic's Council of Kolkhozes.

Two congresses, two programs, two leading organs and twofold elections of delegates—even given the sharp changes taking place today, nobody expected such events to take place in the socio-political life of Lithuania. Moreover, it was possible to assume such an outcome, but only from a theoretical standpoint, as a possible variation in the heated discussions taking place on the proposed reforms in agriculture. In any case, there were no economic grounds for economic differences which could result in organizational dissidence.

What happened? Why did it become possible for two congresses to be held at almost the same time and with almost identical programs? And why generally did it become necessary, on an urgent basis, to summon agricultural workers to a congress, particularly in view of the fact that it was only one year ago that a congress was held for kolkhoz members in Vilnius?

Beyond any doubt, if this was a special congress, then it would appear that problems have developed in the republic's agriculture which are in need of immediate discussion and resolution. But judging by statistical data, Lithuanian agriculture occupies leading positions in terms of many indicators: for every 100 hectares of agricultural land, it produces 212 quintals of meat and 888 quintals of milk. The milk yields are approaching the 4,000 mark. The grain yield—approximately 30 quintals per hectare. There are 50 specialists per farm, of which number 15 have higher educations. There is a large network of fine roads and well organized and pretty settlements which, as is well known, received a high rating during the past Plenum of the CPSU Central Committee. In short, Lithuania surpasses the all-union level to a considerable degree in terms of level of agricultural development and social and cultural construction.

Nevertheless...

The restructuring process in the republic, which has been rapidly increasing in force since the middle of last year, has defined new approaches for solving the numerous problems and has forced us to take a new look at them. In the light of glasnost and under the pressure of various and at times, unfortunately, mutually exclusive opinions, it has become very clear that the laurel wreaths which for many years have crowned the heads of the traditional "winners of the all-union socialist competition" have actually become crowns of thorns that have painfully prevented them from attentively reviewing and analyzing the situation.

With the introduction of the new administrative structure, the rates of growth for agricultural development have increased slowly and the inter-farm relationships have become confused. Despite the fact that tremendous investments have been made in the republic's agricultural sector, a proper return from such expenditures has not been realized. Thus, over the past 20 years the fixed productive capital in Lithuania increased by a factor of

five, while gross agricultural output increased by 45 percent. Moreover, the expenditures could have corresponded to the final results were it not for the command-bureaucratic administrative methods, the excessive centralization, the exorbitant prices for equipment and so forth. And so what if there is a disparity between the amount of national income produced in the rural areas (approximately 50 percent in Lithuania) and its subsequent distribution?

As you can see, the problems are extremely complicated. They were discussed during both of the congresses for the Lithuanian farmers. It would seem that the general misfortunes should have united all those who were interested in transforming the countryside. However, instead of consolidation, a very mediocre type of confrontation took place. The question of how best to restructure the agrarian sector of the economy took on a political coloring which only served to conceal the acute nature of the economic problems and hindered the search for methods for solving them.

The history of demarcation is extremely instructive. This is particularly true in view of the fact that this demarcation took place under the "wise" leadership of certain agricultural officials. At the end of last year, acting upon the initiative of Sajudis, an agricultural committee was created which soon prepared and publicized in the republic press a program for economic changes. We have already discussed this program in the newspaper. It aroused a great amount of interest among the agricultural specialists and, despite the categorical nature of certain conclusions, it reflected basically new approaches for solving many problems. At the same time, in connection with the new socio-political situation and the concept which had developed concerning the republic's economic independence, the decision was made to convene a special congress for farmers. The idea was supported in the Central Committee of the Communist Party of Lithuania and also in the Council of Kolkhozes. Everything was proceeding in the direction of a single peasant forum. But literally within a matter of a few weeks prior to the congress, the positions taken by many members of the agricultural committee of Sajudis and the Council of Kolkhozes differed sharply.

It is not my intention to pass sentence or to seek out the guilty parties. Permit me merely to cite the words of one member of the Sajudis committee, the director of the Vizhanchyayskiy Branch of the Institute of Farming V. Knashis, who stated during the Sajudis Congress for farmers: Sajudis must play the principal role and they (Central Committee of the Communist Party of Lithuania and the Council of Kolkhozes) wished to participate on an equal footing. "The statement was made in a clear and unequivocal manner. It appeared that the Sajudis had rejected all of the recommendations for organizing a general congress and deliberately opted for a split. This was revealed in an authoritative manner during the other

congress, the congress for the republic's farmers, by the 1st secretary of the Central Committee of the Communist Party of Lithuania A. Bravauskas.

What lay behind the decision taken by the leaders of Sajudis? Most importantly, there was a desire to seize the initiative. The position of the opposite side was not taken into account—nor was our priority or differences of opinion recognized. There were no compromises! The ambitions of these "rulers of peasant minds" had taken control over the hotheads to the point where they never even asked the rank and file workers: what did they think regarding the inflamed passions? Do they wish to have an artificial division into ours and theirs? Just as in the first, so also in the second congress, the farmers furnished their own evaluation for this far-fetched campaign.

"We must truly aid the rural areas" stated kolkhoz member K. Pozhela from Lazdiyskiy Rayon and V. Pechyukoneka during the congress for Lithuanian farmers, "and we must not yield to talking shop. The question is why was it necessary to hold two congresses?"

In the situation that had developed, the Council of Kolkhozes conducted itself in an indecisive manner. Although the agricultural committee of Sajudis had published its program at the end of last year, their opponents maintained a stubborn silence. It was not until 3 months later, several weeks prior to the congress, that the draft law of the Lithuanian SSR concerning peasant farms was finally promulgated. And what did it reveal? That there were no basic differences between the first and second documents! The main summary thesis was in keeping with the thoughts expressed subsequently during the Plenum of the CPSU Central Committee: the new agrarian policy must have a firm legal basis oriented towards the market and towards freedom of selection for the management of land.

Yes, more radical proposals were heard during the Sajudis Congress. For example, this included the rapid decentralization of production, the introduction of private ownership and farming. The future was viewed much more realistically by the congress for Lithuanian farmers. Many delegates mentioned the desire on the part of some members of the agricultural committee of Sajudis to disband the kolkhozes by means of an ill-considered campaign or "collectivization in reverse."

In his speech, the chairman of the Kolkhoz imeni Chernyakhovskiy in Radvilishkiy Rayon L. Radenas reflected the overall approach for solving the problem of a collective farm. In his opinion, the fixed capital of a kolkhoz, excluding the socio-cultural capital, must be the property of the kolkhoz members—the shares of stock in this capital should provide the people with an annual percentage, made possible by the farm's profit. It bears mentioning that nothing of this nature is taking place at the Zhelsvyale Kolkhoz in Mariyampolskiy Rayon. The farm is in this manner somehow changing its appearance

and transforming its production relationships into a type of plane where personal complicity in the affairs of a restored collective reigns and where each worker becomes a true owner and not just on paper.

And despite the individual differences, both of the congresses voted for independence, initiative, enterprise and for equal opportunities for a kolkhoz member, a shareholder and a farmer, realized through the extensive use of diverse forms of management and cost accounting relationships. For example, the draft law on peasant farms contains a recommendation for the introduction of three categories of farms operating voluntarily and on the basis of equal rights: public, private plots and peasant farms. In the latter case, land is turned over to the owner for permanent use, free of charge, with the number of family members and the direction of their work being taken into account and also with the right of inheritance, but with no division of the land among the heirs and with no right of sale. A similar thesis is being advanced by the Sajudis farmers. Each has the right to decide for himself what is to be grown, when to sow and from whom and to whom goods are to be purchased or sold. Naturally, upon the condition that the legal reform in agriculture and in the areas of price formation, issuing of credit, social insurance, agricultural services and others is implemented.

As you can see, the methods for solving the problems recommended by both sides, if not identical are at least proceeding in the same direction. What did Sajudis achieve when it openly opted for confrontation? Could it be that it truly earned respect in the peasant community?

No, the congress of Lithuanian farmers, which attracted an audience of 3,000, revealed that such ambitious methods do not score points owing to a lack of compromise. The radical and ultra-revolutionary slogans did not find support among the majority of delegates. And it was unfortunate that the fine business-like speeches delivered during the Sajudis Congress were at times drowned out by mutual reproaches and emotional outbursts.

It is only with difficulty that the lessons of democracy are learned. Falsely understood principles turn into dictates and discussion takes the form of a brawl—emotions flare up and accusations fly. On question is appropriate: who profits from such a confrontation? You can be sure that it is the field and farm workers who profit least of all! Yes and other farm leaders and specialists were selected by the delegates to both congresses. All of these games were not so harmless. As a result, the work itself, the important state and public work of restructuring the rural areas may suffer.

And what will be the result of a forced division of the entire class of workers and lining them up on different sides of the mythical barricades? I am confident that the Lithuanian peasant, who since time immemorial, has been distinguished by reasonableness, soundness of opinion, tremendous love for his land and legendary industry, has suffered a great deal at the hands of those who exploited, exiled and commanded him

The land can be divided, but the farmers, this most powerful class of our society—cannot be divided.

## POLICY, ORGANIZATION

### Gostroy Official Discusses Chronic Construction Problems

18210010 Moscow IZVESTIYA in Russian  
10 Apr 89 Morning Edition p 2

[Interview with V. Balakin, chief of the Main Economic Administration of USSR Gosstroy, by IZVESTIYA correspondent M. Krushinskiy: "What Should Be the Length of Long Term Construction?"]

[Text] It is known that our long term construction transcends the bounds of propriety. Many billions of rubles worth of resources are immobilized in uncompleted construction work. The expenditure methods of administration and technological backwardness are engendering a chronic lack of materials. In short, we are building slowly, poorly and by no means not always the installations that are needed. How can this situation be changed? During a discussion with an IZVESTIYA correspondent, the chief of the Main Economic Administration of USSR Gosstroy V. Balakin gave his thoughts on this subject.

[Krushinskiy] Vyacheslav Alekseyevich, for a start let us examine the question of the dispersion of resources among a tremendous number of production installations being erected simultaneously. On more than one occasion, we have noticed appeals in the press requesting that their number be reduced by 30-40 percent. Is this realistic?

[Balakin] In principle, yes. However, it is another matter as to just how this reduction can be achieved. Thus it is maintained: let us cut back our investments in ferrous metallurgy—it is said that we produce more rolled metal than any other country in the world. Truly: an increase in the production volume is senseless. However, the misfortune lies in the fact that we require another type of rolled metal. Of another quality. High-strength, alloyed and with appropriate additives. A type that will make it possible to lower the weight and cost of structures for the same type of construction. And this can be achieved only by carrying out a radical technical re-equipping of the branch and this in turn requires tremendous capital investments.

Certainly, an inventory must be taken of the industrial construction projects and many of them must be curtailed. But one must take into account the fact that the rates, for example for housing construction, are limited not so much by the absence of "resources generally," which could be transferred over from production construction projects, but rather by a shortage of specific things such as objects of the domestic economy (bathtubs, earthenware, sanitary engineering products). Or let us take the problem of linoleum. Here we have a very

acute shortage! Here once again we must invest more resources in the production sphere and in this particular instance—in chemistry. Thus the "network" stretches out.

[Krushinskiy] But what if our actions are based upon our requirements? Millions of people are standing in line not for "chemistry" but for housing. Thus let us develop not our basic branches generally but rather our housing! Using the mechanism of market regulation. Let us assume, in the case of this same linoleum: that we will pay only as much for it as is necessary to ensure profitable production and that the best minds will become involved in developing its technology while competing against one another and driving the price down.

[Balakin] Certainly, this is all quite true. But the market mechanism will not fall into a state of neglect in just one hour. There is an overall imbalance throughout the country caused by a surplus of monetary funds. We are still striving to establish direct communications, for example, with the same chemists. We tell the builders: since you need linoleum, go to the enterprises which produce it and propose an exchange of your above-plan products for their above-plan products. It could be an apartment building or a kindergarten. An exchange in kind? Yes, to a certain degree. But given our disorganized finances, even this you will agree could be a solution. The client has the money but it is not in balance with the material resources.

And generally speaking, the burden of governmental decrees is still inhibiting a reduction in the number of industrial construction projects. They were undertaken under departmental pressure and quite often without taking into account the resource potential available in the various areas. Many of them must be reviewed from the standpoint of allocations of additional budgetary funds and the list of construction projects.

[Krushinskiy] It is clear as far as the departments are concerned. But, as is known, the tendency towards squandering and waste is found at the lower level of enterprises, although cost accounting must somehow restrain them from capital investments, the effectiveness of which is doubtful. How do you explain this? And is it possible to limit the "lower investments," not by means of prohibitions but economically?

[Balakin] There is a simple explanation: the people have been deceived for too long a period. Judge for yourself. Since 1965, the enterprises have periodically been told: from now on you will retain a portion of the profit; the "upper echelons" will no longer encroach upon it, save the money or spend it! Three or four years passed and the money accumulated safely in the treasury. Now they are attempting to spend more and to spend it more rapidly while the opportunity is available.



But a limitation is possible. For example, let an enterprise-client pay the state for "overdue" and incomplete construction work just as for active fixed productive capital. And conversely: a new department is placed in operation (for example) ahead of schedule—payment for it will commence at that moment when the normative period for construction has expired. Is this logical?

[Krushinskiy] It is logical. But an enterprise's own funds do not constitute the only source for capital investment. Yes and bank credit still does not play a substantial role in capital construction: direct budgetary appropriations predominate. In such a situation, it is hardly possible to satisfy the appetites of the departments.

[Balakin] We have just completed work on a draft special governmental decree on investments. One idea embodied in this document is the fact that a portion of those state centralized capital investments not associated with a state order must be carried out on the basis of long-term bank credit. But a question arises: where do a bank's credit resources come from? We propose to supplement them by "curtailing" the free appropriations. Moreover, after having reduced them let us say by 40 percent, the credit resources must be increased not by this amount but by a lesser amount.

[Krushinskiy] But where will the banks obtain the missing resource?

[Balakin] Let them develop business-like activity and accelerate a turnover in the ruble. The banks are being allotted an adequately strong fund, the renewal and augmentation of which is entirely dependent upon themselves.

[Krushinskiy] And what is the situation with regard to those investments which take place through a state order? Are free loans from the budget really the only possible source for financing them?

[Balakin] I do not believe that we will be able to manage in the absence of state appropriations or without direct non-market regulation of the national economic proportions. Budgetary financing can be replaced only gradually. Moreover, this will certainly involve welcoming an increase in the economic independence of the banks and true competition between them, while promoting the development of a network of commercial banks and generally—business-like activity in the financial sphere.

[Krushinskiy] What other innovations are contained in the draft governmental decree which you mentioned?

[Balakin] We base our position upon the fact that changes have recently taken place in such concepts as "construction" and "capital construction." The proportion of special construction work has declined and con-

tinues to decline, with a definite role now being played by the installation of large-scale technological power engineering installations. Accordingly, changes are taking place in the traditional role played by participants in the investment process. Our recommendation: from bilateral agreements, to convert over to multi-lateral contracts for capital construction. The possible participants in such a contract—not only the traditional general contractor and client, but also the planning, specialized contractual and start-up and adjustment organizations, equipment production enterprises, the territorial organs of Gossnab, the financing bank and the executive committee of the local soviet. In addition to the obligations of each of the partners, the responsibility for violations of these obligations in the form of compensation for damage sustained must also be stipulated in the contract.

In essence, we have in mind the establishment of equal collaboration for economically independent firms. We have a list of specific installations where a check is being carried out on the new method.

[Krushinskiy] A "firm" is understandable. But what about the ministries and main administrations? Will there be room for them in the system of managerial relationships towards which the work is moving?

[Balakin] Hardly in their present form and particularly if we are discussing the construction branch. Structural changes in this branch are inevitable. Properly speaking, they are already taking place, although in many instances they still involve only the form and not the essence of the phenomena. Let us say that the territorial construction associations, in terms of their functions today, do not always differ from the traditional main administrations. Meanwhile, they must be completely special economic formations. Their organizational structures must be determined based upon the specific conditions. And the interrelationships with the organizations and enterprises included in their structure must be strictly economic and developed on a contractual basis. The entire essence of the matter has to do with a departure from routine and diverse forms. By way of an example, allow me to cite only the construction committee formed in Leningrad. This is indeed, pay attention, not quite the same as Mosstroykomitet! It was not created as a part of Leningrad Soviet of Workers' Deputies or Leningrad Oblast Soviet of Workers' Deputies, but rather it stands by itself. It is a type of regional construction system and it can be referred to either as a firm or a corporation.

Only time will tell just how successful the Leningrad experiment has been. But in any case it would be a crude mistake to blindly disseminate it about the country. Each region has its own level of economic and psychological readiness for innovations.

## POLICY, ORGANIZATION

### **RSFSR Light Industry Official on Reorganization, Shift to Khozraschet**

18200367 Novosibirsk *EKONOMIKA I*

*ORGANIZATSIYA PROMYSHLENNOGO*

*PROIZVODSTVA in Russian No 4, Apr 89 pp 59-62*

[Interview with V.D. Rigin, RSFSR deputy minister of light industry, by O. Pravotorov, part-time correspondent: "The Ministry Converts to Cost Accounting"]

[Text]

[O. Pravotorov] In November 1988 the RSFSR Ministry of Light Industry converted to the new general scheme for managing the sector. What has changed in your bailiwick?

[V.D. Rigin] First of all, a three-tier administrative system has been replaced by a two-tier system. We used to have 437 enterprises, included within 18 industrial associations, which were, in turn, subordinate to the ministry. Now these associations have been eliminated as an intermediate link between the ministry and the enterprises.

At the same time, we have consolidated the primary units. The forms of such consolidation are varied; only the future will show the economic feasibility of each of them. Thus, more than 70 industrial-trade associations have been created, along with five territorial ones (in the Soviet Far East, in the Amur, Khabarovsk, Irkutsk, and Kaliningrad oblasts); we have also formed production associations of a mixed nature, scientific-production and specialized associations, such as, for example, for sewing headgear and special work clothing. In all, the ministry will directly include 250 production associations and enterprises.

Reorganization is also taking place within the ministry itself. Twenty administrations (some of them main ones) are being reduced to the following four blocs: scientific-and-technical progress, economic, social-development, and production. This last organizes the production of the output for the state order and monitors its performance. With regard to every question affecting its own economic activity, the production collectives have a specific and single place to turn to in the ministry. The ministry's apparatus is being reduced by 59 percent.

[O. Pravotorov] These days ministries are being criticized for the fact that, under the altered economic circumstances, they continue to be guided by the old principles; for example, they redistribute profits among the leading and the lagging collectives. Will the RSFSR Ministry of Light Industry change its concept of its own functions after reorganization?

[V.D. Rigin] We intend to replace the administrative methods of management with economic ones; we are striving to place our relations with the enterprises on a truly cost-accounting basis. In 1989 the enterprises of this sector will convert to the second model of cost accounting, and the ministry itself will begin operating on a cost-accounting basis in 1990. But for this purpose we need to create a special ministerial infrastructure—a network of sub-divisions for rendering paid services to enterprises, in particular, service centers which would fill orders for sets of raw materials, training and retraining personnel, developing cooperative ties with foreign firms, creating joint enterprises, building cleaning facilities, and launching new lines.

Converting the ministry to cost accounting places heightened demands upon the occupational competence of its employees. We need extra-class specialists, experts who are capable of rendering effective aid to enterprises, not only in the form of consultations, but also in the specific organization of production.

It has likewise been proposed that a bank be opened within the ministry. Such a bank would put the free assets of the enterprises into circulation and offer them loans under privileged conditions.

[O. Pravotorov] Will the enterprises and the ministries be equal partners? Many production collectives consider that the ministry arbitrarily sets the percentage rates for deductions from profits.

[V.D. Rigin] Juridically speaking, the ministry and the enterprises function on principles of parity, as partners with equal rights. But the cost-accounting relations can be constructed in various ways: upon agreement between the parties concerned, the ministry may receive for its services a fixed percentage of the deductions from the enterprises, or specific agreements may be concluded with respect to concrete types of services.

[O. Pravotorov] It's a well-known fact that the financial status of certain enterprises in this sector leave much to be desired. The ministry will no longer be able to support them at the expense of the collectives which are operating well. And they will have nothing with which to pay the ministry for services. What fate awaits such enterprises?

[V.D. Rigin] We are now paying particular attention to these enterprises. We are retooling, improving the assortment policy, recruiting personnel, and allocating funds from the ministry's centralized fund. To be sure, we are indeed being criticized for redistributing finances. At the present-day stage of conversion, however, this cannot be avoided. But when we shift to the second model of cost accounting and to leasing, when enterprises are truly on a self-financing basis, and the ministry has at its disposal only the money earned for maintaining the apparatus and the funds of the sectorial bank, such aid will be impossible.

Moreover, the future of certain poorly off enterprises, despite the efforts being undertaken, evoke serious concerns. Some of them will obviously have to be broken up, transferred to cooperatives, or leased out.

[O. Pravotorov] The cheap assortment has been eliminated from the enterprises' production programs. Previously, the ministry could use administrative means to put the brakes on this negative trend; but now this possibility is vanishing.

[V.D. Rigin] Due to low profitability, it is disadvantageous for enterprises to produce items in the children's assortment or items for elderly persons. These types of products were included within the state order, and, beginning in 1989, higher wholesale prices will be set on them. It's probable that the output of children's items will bring in greater profits than other goods for adults. The economic mechanism must achieve harmony in working this out.

[O. Pravotorov] The proportion of the state order for 1989 in light industry has been reduced. Won't the output of new products be cut back in connection with this?

[V.D. Rigin] Their own production programs in the portion not occupied by the state order will be determined by the collectives at fairs, and agreements will be concluded. The ministry will analyze the plans which have been formulated and, if it sees that the obligations are too low, that they are not in accord with the enterprise's capacities, then it will propose that the enterprise reconsider this matter. In the final analysis, it is in the enterprise's interests to maximize its potential, to utilize its free capacity to produce particularly fashionable items, goods with the "N" index. And it is here, I think, that economic incentives will have their effect.

[O. Pravotorov] What are the consequences for this ministry's employees who have allowed administrative errors to be committed?

[V.D. Rigin] Under the old administrative scheme workers were threatened with purely administrative measures (reprimands, reduction in rank, dismissal). Under the new model their work is stimulated by the ruble. Personal bonuses may be paid out to supplement their salaries. Its amount is revised every quarter. An employee who commits an error is deprived of this incentive. For an extreme case, an administrative method may be more suitable.

[O. Pravotorov] Who compensates for a loss to an enterprise which it has suffered due to the fault of the ministry?

[V.D. Rigin] Until such time as we are on the state budget, neither the courts nor the arbitration units can extract any money from us. The ministry can partially reimburse an enterprise for losses by rendering aid to it from the centralized fund. Juridically speaking, it will have the right to compensate for damages when it converts to cost-accounting relations.

**This interview was conducted by Oleg Pravotorov, part-time correspondent for EKONOMIKA I ORGANIZATSIYA PROMYSHLENNOGO PROIZVODSTVA in Moscow, and in the journal's editorial offices in Novosibirsk debates have still not quieted down as to what consumers may expect from this ministry on cost accounting.**

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## PERSONAL INCOME, SAVINGS

**Trends in Saving to Curb Inflation Analyzed**  
*18270096 Moscow EKONOMICHESKAYA GAZETA*  
*in Russian No 18, Apr 89 p 12*

[Article by N. Buzina, director of the sector for general problems of savings of the Credit and Finance Research Institute of the Banks of the USSR, and V. Volodina, senior scientific associate: "Billions in the Savings Banks: "Is It Possible to Transform the Economic Distress into a Strength Capable of Stopping Inflation?"]

[Text] With each day, the inflationary process in the country is becoming more and more obvious. Wages are increasing but this is not making things better for us. The ruble, having fallen into the conditions of a severe dearth of goods, has "lost weight" noticeably and, naturally, is ever more reluctantly returning to circulation, settling in the hands of the people. What should be done? How can we force this money to "work"?

### Are We Rich? Are We Poor?

The magnitude of savings in the population is an especially sensitive indicator of the disturbances of the monetary turnover. In recent decades, we have seen a clear trend toward their increase (see table). At the beginning of 1989, savings in deposits only amounted to 297.5 billion rubles, an increase of a factor of 6.4 since 1970, and their absolute increase in 1988 reached 30 billion rubles.

	1970	1975	1980	1985	1986	1987	1988
Total deposits at the end of the year (billions of rubles)	46.6	91.0	156.5	220.8	242.8	266.9	297.5
1970 = 1	1.1	1.9	3.3	4.7	5.2	5.7	6.4
1975 = 1	—	—	1.8	2.4	2.6	2.9	3.4
1980 = 1	—	—	—	1.4	1.6	1.7	1.9
Absolute increase in deposits (billions of rubles)	6.6	12.1	10.3	18.6	22.0	24.9	30.0

Whereas in the entire 11th Five-Year Plan deposits increased by 64 billion rubles, they have already increased by 77 billion so far in the current five-year plan.

But deposits are only part of monetary savings. People also accumulate money in state bonds; the total of bonds acquired by the population for a 3-percent internal payoff loan amounts to more than 15 billion rubles. In addition, there are insurance policies, in which about 29 billion are concentrated. And this is still not all. A certain part of the population prefers to keep its savings at home, in "jugs." According to the estimates of economists, about 70 billion rubles are held in precisely this way. Thus, the total sum of monetary savings of the population today is quite imposing, more than 400 billion rubles.

Here we are seeing not only the natural desire of people to have assets "in reserve" or to accumulate for a major purchase—an apartment, car or furniture. In part, it was the result of the shortage of goods and services in the consumer market and of the appearance of signs of a dearth of goods.

Not even the relatively rapid increase in the average prices for the acquisition of goods could compensate for the worsening of the situation. According to our calculations, the share of the price factor in the increase in the commodity turnover was 30 percent in the 9th Five-year Plan, 47 percent in the 10th, and 55 percent in the 11th. Despite the acceleration of the sale of individual durable goods, the rate of overall increase in retail commodity turnover for consumer goods lagged behind the rate of increase in deposits, which gave rise to serious difficulties in the realization of accumulated money.

Thus, unsatisfied demand is increasing. According to the estimates of the Research Institute for Banks, it amounts to 120 billion rubles. According to other estimates (Central Economic and Mathematical Institute, All-Union Research Institute for the Study of Trade Conditions and Demand, Economics Institute of the USSR Academy of Sciences), its magnitude ranges from 60 to 200 billion.

In short, the contemporary savings process is characterized by very negative tendencies: increases in savings are developing at abnormally high rates, exceeding the rate of increase of many basic indicators of national well-being.

#### For whom are savings "working"?

In our view, besides the commodity-money imbalance, the increase in the average prices for goods, the relative lengthening of the time for the accumulation of monetary assets for purchases of goods, and the active establishment of insurance policies for various purposes also "help" in the settling of money in the hands of the people.

There is still another group of factors that restrain the development of the economic conditions for the realization of monetary savings. They include the inertia in the functioning of the existing low-efficiency mechanism for the utilization of assets accumulated by the population, the similarity of the forms of monetary savings (narrow range of banking services) and the lack of freedom for the independent placement of one's own "capital." The inadequate flexibility of banking policy (in particular, the USSR Savings Bank is deprived of the elementary banking right to set interest rates) and the distortion of objective data on the specific utilization of savings for financing and the extension of credit (formation of credit and financial resources under the principle of the "common pot") are hindering the efficient utilization of savings.

Can these negative factors be eliminated? Undoubtedly. For this purpose, it is necessary to implement a program of measures and to switch to a scientifically founded state regulation of the saving process.

In our opinion, one should refrain from the traditional mechanism of the nonproductive utilization of monetary savings. Its general pattern has not undergone change since the beginning of the restructuring of the financial and credit system: it continues to be characterized by the principles of the domination of administrative methods of management, the groundlessness of economic decisions, and the lack of interest in a fundamental change in the conditions of management.

The monetary savings of the population in the form of insurance policies are a stable source of budgetary appropriations and have a purely financial nature. Accordingly, the production of a material-cost equivalent in the form of a commodity through the given form of saving is not mediated in any way. There is a partial development of the social infrastructure through insurance policies, that is, their possessor receives back in the form of services of a social nature (housing construction, hospitals, rest homes, etc.). This is equally valid for state

bonds. Under the conditions of a budget deficit, however, the given assets (insurance policies and bonds) perform more of a protective function, being a source to cover budget "gaps."

The monopoly character of the activities of the USSR Ministry of Finance is also manifested in its utilization of Savings Bank deposits as "its own" resources.

In using its resources to involve itself in specific as well as nonspecific financing, the budgetary department redistributes assets through deposits proceeding from the urgent requirements of the economy and from the long-term needs of the population.

In other words, **no corresponding equivalent in the form of consumer goods is produced with the monetary savings put into circulation.** Thus, the absence of a delimitation of the functions of the organized forms of savings and their nonspecific utilization ultimately lead to a decline in the purchasing power of the ruble and in the real income of the population, to an increase in the prices of commodities and to a worsening of inflation. How does this take place?

The savings of the population in the form of deposits in the Savings Bank automatically become credit resources. The generous extension of credit for unprofitable production disturbed the basic proportions of saving and consumption: **the basic internal demand for assets set aside in savings deposits—the exchange of their monetary form for a commodity form—ceased to be fulfilled.**

#### How to restrain inflation?

In our view, in a very short time it will be necessary to change to a fundamentally new mechanism for the formation and realization of the population's monetary assets. Its essence is the utilization of a diversity of forms of savings, the restoration of the stimulating role of interest and finally, the alteration of the means for disposing of the savings of the population, the main objective of which is the satisfaction of needs for goods and services.

It may be worthwhile to take a closer look at the basic directions of deposit policy in the countries of the socialist community. We see that the level of the organization of savings is increasing everywhere there and it is becoming a leading banking sector. Many countries have a broad set of special-purpose deposits.

Deposits that have not become widespread in our country are worthy of special attention: housing and savings certificates for a specific purpose (for motor vehicles, for example); transferable checking accounts, with the help of which one can perform clearing transactions and pay for an apartment, the purchase of goods, etc. without bothering to visit the Savings Bank; and different kinds of children's savings. All of them have a broad range of differentiation of interest rates depending upon the type, term and size of deposit. There is thereby a principle in

effect, according to which the interest rate must be no lower than the rate of inflation and reflect the market conditions for the turnover of monetary assets.

We are observing a departure from traditional kinds of individual deposits and an orientation toward the accumulation of funds in the form of shared contributions. Some countries of socialism have begun to issue securities—shares of stock and bonds. The income from the bonds is set in advance, whereas the income from shares of stock changes in accordance with the profit obtained. (Some Soviet enterprises have also begun to issue shares. In our view, this process should be developed further).

Thus, the socialist countries are searching for ways to establish a financial market and the productive utilization of savings. A concept is gradually being developed for the effective management of the savings process.

What are we proposing?

In the first place, in the interests of the Savings Bank, on the one hand, and of the population, on the other, it is essential to **differentiate interest on deposits based on the conditions of the custody of money in deposits and bonds (term, purpose, the bank's need for resources).** Raising the interest rate will restore a stimulating role to it, will eliminate the spontaneous nature of saving and will give more specificity to the structure of deposits. Moreover, it will also attract significant sums of money from "jars" to deposits. (How to make them "work" is another matter. More about this below.)

In the second place, it is necessary to improve the system of loans existing in our country. In our country, it would be **expedient in part to renounce prize remuneration under state loans, introducing regular interest payments on bonds analogous to savings accounts.** And correctly, when enterprises are permitted to acquire state bonds within the limits of available monetary assets. Let the banks accumulate these assets in their deposits under higher interest rates and take them out of economic circulation, easing the situation in the market.

In addition, we suggest, on the basis of an analysis of the medium and long-term budgetary plans of the state, **determining the current and long-term need for loan financial resources and, on this basis, proposing different versions of special-purpose bonds (in particular, for housing and land).** The funds from bonds should be put into the development of social and economic infrastructure with their subsequent coverage through the profit from the operation facilities that are put into operation.

Also possible are such new forms of mobilizing monetary assets as long-term and short-term certificates with a floating interest rate. They are issued by the banks in the event of an acute need for monetary resources and make it possible to attract significant funds quickly that the population willingly gives up for a high interest rate. In so doing, the long-term certificates can become a real

source for increasing the liabilities of the Savings Bank, whereas it is expedient to offer short-term certificates with terms of up to 6 months and a maximum rate of interest. These types of deposits can be utilized for the extension of credit to the population at high interest rates.

**Finally, the improvement of the organization of the monetary turnover on the basis of the expansion of clearing operations will help to restrain inflation. As early as 1922, V.I. Lenin spoke of the necessity of "striving for the most rapid possible institution of the most radical measures preparing for the destruction of money...and its replacement through savings books, checks and short-term notes with the right to obtain social products and...the compulsory holding of money in banks...."**

The contemporary institutions of the Savings Bank have begun the transition from the labor-intensive drawing up of documents by hand to an automated means of providing most services. But the task of improving clearing operations with the population involves not only the transfer of the largest possible share of income to a cashless form but also the utilization of the latter without the application of cash.

How can this be done? It is more courageous to introduce checkbooks for the payment of all kinds of goods and services, which will help people to prepare psychologically for the transition to "electronic" money. This is the prospect and it should be considered.

**Specific programs for the involvement of the monetary resources of the population in the extension of credit to enterprises producing consumer goods** can serve to reduce pressure in the consumer market and, accordingly, to diminish inflationary processes. And precisely these goods will be the objects of specific credits.

An example of this is the developing campaign to accelerate the construction of the motor vehicle plant in Yelabuga. Thousands of people are already prepared to be creditors of the construction so that in the future they can have the opportunity to acquire a car under preferential conditions on a priority basis.

Who will be the mediator? It could be the USSR Savings Bank. For it is called upon not only to attract and keep the monetary assets of the population but also to contribute to their final realization, that is, to carry out its traditional intermediating function.

This means that the Savings Bank must have the right to participate in the extension of credit for social and economic programs aimed at a better satisfaction of consumer needs of various kinds.

It is necessary to include it realistically in the process of the comprehensive planning and implementation of the structural reorganization of the national economy to the benefit of the social needs of the society. Such an approach will make it possible to restore the presently disrupted cycle of the turnover of monetary savings of the population as a credit resource and to involve the institutions of the Savings Bank directly in the development of the production of consumer goods and services.

## FUELS

### Fuel Production Strategy Viewed

18220108 Moscow *EKONOMICHESKAYA GAZETA* in Russian No 16, Apr 89 p 5

[Article by D. Aksenov, doctor of engineering sciences, professor at the Moscow Institute of Petroleum Geology imeni I.M. Gubkin: "The 'Net' Energy Strategy"]

[Text] A poster hanging in the auditorium for scientific conferences in one of the major research institutes reads: "A boost of social production is the basis for developing the fuel and energy complex!"

This slogan, which is a bit off the mark, contains the strategy for development of the country's fuel and energy base which has long been outdated, in which everything has been turned on its head by a substitution of terms: instead of fuel for the good of the people, it looks to the people's colossal labor for a further growth of extraction.... It is based, this strategy, on the cost-plus mechanism and is founded on the long-outdated slogan: the more you extract, the better the country's energy supply, and that means a stronger economy. But here is the paradox: We have been

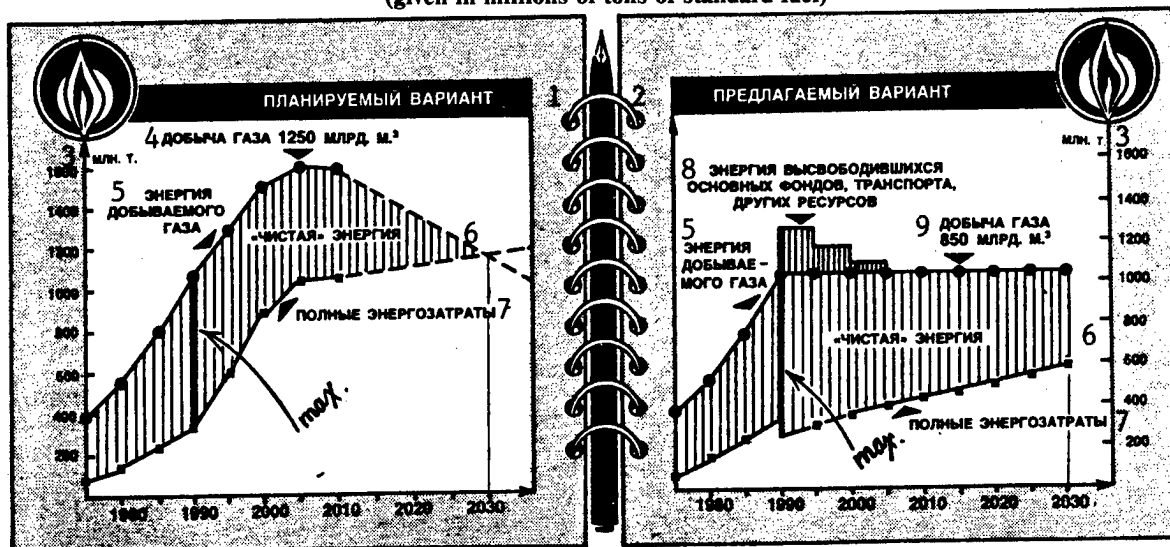
extracting more and more fuel, and the shortage of it is becoming more and more acute. And it will hardly slack off over any near and foreseeable future.

Many people see a further forcing of the gas and petroleum industry as the only way out, and supposedly there is no other way. Is that the case?

As extraction of fuel expands, the production capacities of related branches also grow simultaneously. More and more pipe and equipment are produced in the economy, and an immense volume of physical, labor, and—what is more—energy resources are expended for that purpose. The return can be expected only in several years. If the rate of fuel extraction is increased even more, you get the effect of an accelerated rise of costs in the economy, since the production capacities in place cannot satisfy the ever growing need for pipe, equipment, and materials. This in turn generates a sharp increase in energy consumption of production operations related to the needs of the fuel branch, that is, along practically all vertical lines in the economy. We extract more, but we spend still more, and we are getting less and less "net" energy—that energy which goes to meet the needs of the economy and the country's population!

And then another unpleasant factor emerges: At some point, the costs of major repairs of gear and equipment begin to rise rapidly, since they are aging.

Dynamic Behavior of the Energy From Gas Extracted and the Full Energy Inputs To Produce It  
(given in millions of tons of standard fuel)



Key:

1. As planned
2. As proposed
3. Millions of tons
4. Gas production 1,250 billion m<sup>3</sup>
5. Energy of the gas produced
6. "Net" energy
7. Full energy inputs
8. Energy of the fixed capital, transportation, and other resources made available
9. Gas production 850 billion m<sup>3</sup>

In my view, this strategy is utterly unacceptable at present. What is more, it results in grave socioeconomic consequences. Today, when all the standing conceptions and postulates are being reexamined, when the new economic mechanism is being assimilated, we have to give up once and for all the old methodological approach in such an expensive sector as fuel and power (about 50 percent of the capital investments of industry go to the fuel and energy complex).

In 1986, our institute did approximate calculations of the efficiency of the gas industry's development that is now planned. They showed that the branch would reach its optimum level soon, in 1990. After that, a period would begin of rapid decline of efficiency, and in approximately 5 years there would be a critical point at which the size of the growth of energy from the gas would be equal to the growth of energy inputs to meet the needs of its expanded reproduction.

It is all explained quite simply: At this point the major deposits are being depleted and the gas has to come from further away and from deeper in the ground, and it comes from small deposits located under the harsh conditions of the Arctic. Is this economically justified? Plans call for investing about 240 billion rubles in the gas industry up to the year 2005, which will result in a 3.5-fold growth of fixed capital. Accumulation of such immense resources, their rapid aging beyond the end of this century, will mean large costs for the country; after all, there will be a simultaneous growth in the volume of repair work as well. All of this results in a sharp rise in energy inputs as well and these will not be avoided by any improvements in equipment or particular technologies....

The petroleum industry has become a vivid example of the sharp drop in the efficiency of the fuel sector because of incorrect definition of the strategy. It reached its apogee in the volume of production in 1983 (fixed capital 34 billion rubles, total capital investments about 45 billion). Then the volume of petroleum production not only stabilized, but decreased, in spite of the steps that were taken and the large resources invested.

Only toward the end of last year did petroleum production rise 1 percent at the price of an incredible strain. That cost the national economy approximately 45 billion rubles (capital more than doubled, almost 40,000 additional wells were drilled, not to mention other things). Then operating costs have to be added to that. That is, the capacities created for extraction and transport of the petroleum will return the energy it owes to the economy only in 16-18 years.

It is surprising: these unfavorable facts have, as they say, been in view for several years, but various representatives of science continued to demand a further growth in the volume of petroleum production to 630-640 million tons, and only then "stop and look around...." And this has been happening even though the forecast of the rate

of specific capital investments relative to the growth of petroleum and gas production has long been well-known: it became inefficient to increase petroleum production way back in 1980.

As we see, the lesson of the petroleum industry was not put to advantage, and that is why the persistent effort to force development of the gas industry by those same extensive methods is continuing: gas at any price.... Prestigious scientists—advocates of extensive methods of developing the gas industry—propose bringing gas production up to 1,200-1,250 billion m<sup>3</sup> even by the year 2005.

The strategy we are proposing for development of the gas industry envisages a more economical scenario. We have to begin to stabilize the level of gas production at the moment when the maximum of "net" energy is reached. A portion of the capital investments intended for the gas industry would go for accelerated development and application of energy-saving technologies and equipment.

The potential for conservation in our country, as is well-known is immense. According to the estimates of specialists, overconsumption has now reached about 40 percent of all the energy delivered. In the gas industry alone, energy consumption could be reduced by one-third, which would mean a saving of about 50 million tons of standard fuel per year. The saving by gas consumers could exceed 100 billion m<sup>3</sup> per year.

The strategy proposed for stabilizing gas production at the 1990 level (850 billion m<sup>3</sup>) will make it possible to obtain more "net" energy than has been planned: more than 1 billion tons of standard fuel over the next three FYP's. (Billions of tons of standard fuel are preserved underground in the form of gas.) More than 150 billion rubles of capital investments will be saved at the same time. The economic benefit of this solution can hardly be overestimated.

Briefly put: we are proposing that less gas be produced, that the country's costs be lowered, but that more "net" energy be obtained at the same time. It seems to be a paradox.... But there is no paradox. The sharp reduction of capital outlays and operating costs will help to reduce the volume of production of products for the gas industry in 13 branches of the economy! This will in turn save the raw materials branches unnecessary effort, there will be no need for additional development of the supply branches and transportation systems. On the contrary, they will be made available to meet other needs, and a small reserve of labor resources so necessary to the economy will be formed.

Our calculations are approximate, but they are very important, and with the help of interested organizations they need to be transposed into real projections to work out the optimum conception for development of the fuel and energy complex. Procrastination in this matter is



fraught with unpredictable consequences. There is an urgent need to unify the efforts of the scientific potential of all the branches involved, institutes of USSR Gosplan, USSR GKNT, and a number of institutes of other departments to work out an economically sound strategy for development of the country's fuel and energy base. It cannot be said that we have been sitting with our hands folded. We have been trying to organize that kind of effort. But we have not been getting anywhere. The proposal is not being rejected—the opponents have not been finding sufficient basis for that, and they even note the undoubted importance of the problem that has been raised, but the tried-and-true bureaucratic technology of riding the brake still works effectively.

...Time is passing, and it has decisive importance. Stabilizing gas production in the year 2000 will no longer be necessary. By that time, the country will be incurring immense costs, capital of fabulous size will have been created in the gas industry, and the country's entire economy will have to work strenuously to repair and restore it.

#### **Low Productivity, Poor Equipment Plague Oil Industry**

18220134 Moscow SOTSIALISTICHESKAYA  
INDUSTRIYA in Russian 28 May 89 p 2

[Article by special correspondents G. Bazhutin and L. Skoptsov: "How Are Things Going, Our Providers?"]

[Text] As we know, in our economy the oilmen are the principal providers. Most of the imported grain, oil, meat, medicines, consumer goods and modern equipment are purchased with tons of oil converted into jingling coins. Were the river of oil to suddenly run dry, the country would suffer disaster. But petrodollar abundance is dripping far away from Soviet oil fields. Electronics, microprocessors and automated drilling and extraction procedures remain the property of oilmen of Alaska, California or the Arab Emirates. This is why the productivity of the labor of American drillers for example is five times greater than ours.

However, nature has helped us for a rather long time. Samotlor, Mamontovo.... These are unique deposits. It is there that oil gushers allowed the Soviet Union to surpass the records of Arab sheiks within just a few years and extract over 50 million tons of oil each month. But there came a time when the gushers began to abate, and the era of gifts from nature ended. Reliance upon our own effort—that is, upon modern technology capable of effectively extracting oil from great depths—became necessary. And as always, it was unexpectedly revealed that there was nothing to rely on. The drilling equipment and the oil extraction resources were obsolete even 25 years ago. And even this obsolete, inconvenient and extremely unreliable equipment was in short supply: There were many deposits, and the wells were increasing in number, but the oil extracted from each of them was increasingly less.

The first alarm bell sounded in the mid-1980s: For 3 years in a row the oilmen were unable to meet their planned targets. Interruptions in fuel supply began in the world's largest petroleum power. But then the situation was rectified: Mikhail Sergeyevich Gorbachev traveled to the Tyumen North in September 1985. He gathered together the executives of all interested departments in Surgut. In general, reads a report of the Tyumen Oblast Party Committee, "measures to provide assistance, adopted by the party and government after M. S. Gorbachev's visit to Tyumen Oblast, made it possible to ensure further growth of oil and gas extraction volumes and to sharply intensify cultural, personal and housing construction.... Fifty-six new deposits were placed into operation."

But here is what a summary from the State Committee for Statistics for the first quarter of the current year says: Oil extraction has fallen by 3 percent. What is this? A chance failure? No, from all appearances this is the second alarm bell: The news coming from the Tyumen oil fields is so bad that only a further decline can be predicted. And a much steeper one than 4 years ago. At the end of last year almost 800 (!) wells suffered downtime in excess of the standards. Today there are already almost a thousand of them. And if in the estimation of specialists the shortfall in Western Siberia was 15 million tons of oil last year, this year the shortfall may double, and even triple.

And so, a repetition of the past. The energy imparted by the nudge in September 1985 was enough to last only 3 years.

Why? Let's reason this out.

The Surgut conference resulted in the publication of 26 programs and 908 targets, which foresaw everything, or so it seemed: additional deliveries of equipment, large-scale production of new types of drilling and oil field equipment.... And the main promise was that by 1990, the overwhelming majority of this equipment—very close to 90 percent—would be on par with the best world models.

But not even a year had passed before the machine building office of the USSR Council of Ministers noted a failure of a fourth of the 1986 targets in that same Surgut. And today, in the unanimous opinion of the executives and common workers of the oil fields of Tyumen, with whom we were able to meet during our trip, the Surgut program had failed in all of its principal subdivisions.

There is of course an opposite opinion as well. V. Konyshov, now the former first deputy chairman of the office, feels that "the situation with petroleum machine building has changed in principle..., and although the program is suffering a few isolated failures, on the whole it is being successfully fulfilled...."

As we know, practical experience is the sole criterion of the truth. And in practice, the status of reequipment stands as follows.

"Watch out, be careful!" the driller's assistant decisively pushed us away from the well. We withdrew, and watched the risky manipulations of the workers from a safe distance. The latter were trying to uncouple a string of pipe removed from the well. There is a special mechanical wrench that is used for this purpose. But the jaws of the wrench slipped helplessly over the pipe coupling: Not enough power. Judging from the behavior of the people, this situation was typical. Some additional mechanical contraptions are put together on the spot: The wrench is locked shut with crowbars, and a tractor is coupled to it. Now everything depends on the virtuosity of the tractor driver. He must nudge his vehicle into motion gently enough not to break the cable, or cause the crowbars to fly off, or cause the wrench handle to break off. Just a slight miscalculation, and the people at the well risk becoming disabled.

"Oh, it's all right, we've managed to adapt," it was hard to guess whom foreman I. Kropelnitskiy was trying to persuade, us or himself. "We've been working many years this way, you see."

So this was the "world" level that we encountered in spring 1989 in the well overhaul brigade of one of the best and most promising enterprises of the Ministry of Petroleum Industry, Noyabrskneftegaz. There was but a year left to the deadlines noted by the Surgut program, but the implements of labor in the hands of the repairmen are the most unpretentious. And terribly unreliable. The level of manual labor in the brigades is 70 percent. One out of every five drillers and one out of every six producers are involved in repair. Work must be done beneath the open sky at all times: in winter in forty-degree winds, and in summer beneath clouds of biting flies.

Everything is clear when it comes to the repairmen. But might "fundamental changes" be noticeable among the drillers?

"What has changed in drilling, you ask?" assistant process foreman A. Zaydulin shrugged his shoulders. "The brand of the drilling rig and its price. Just recently it cost 700,000-800,000 rubles, while now it's over a million. Otherwise, probably nothing."

What is behind this "nothing" is the inherited ailments of petroleum machine building. The drilling tongs are good for nothing, they are cumbersome, and they often break. The drilling pumps lack power, and they do not last for more than two wells, after which they break down. It is impossible, as before, to determine what is happening in the bottom hole. Every 30 meters the drilling must be stopped so that geophysicists could take measurements of the well's curvature.

We will not tire the reader with a lengthy list of woes. Let us simply say that things are not going any better with the producers. And for the association as a whole—we summed up the situation in the office of Noyabrskneftegaz's chief mechanic A. Postoyenko—the technical base has not become any stronger in three and a half years. It has even grown weaker in some areas: The association's orders are satisfied to only 70-80 percent, you see, and there is a highly acute scarcity in all respects. Thousands of units of written-off equipment are still working. And deliveries of spare parts are covering 15-20 percent of the demand.

Meaning that things are going badly for the providers, if the truth were to be said. The threat of technical paralysis sways relentlessly before them. Both the oil field operators, and together with them the entire economy of the country, would long have been paralyzed, had it not been for the "shadow economy." Yes, yes, it is precisely the contacts in the shadow economy that are keeping the oil sources flowing. They currently provide support to a phenomenon new to the Tyumen North—in-house subsidiary underground machine building.

We visited such an enterprise together with A. Postoyenko. A modest name appears on its sign—"Base." Beyond the lobby are the plant shop buildings. It is known that the oil extracting association receives neither drilling rigs, nor tools, nor metal through funded channels. But production proceeds at a full load and with a rhythmicity and an output-capital ratio that would be the envy of any plant. Where does all of this come from?

"You have to know what's where," the directors replied tersely and somewhat reluctantly. This reserve is understandable: Virtuosos of supply operations must keep the company secrets.

Let us consider the assortment of articles produced by a single shop—up to a thousand items. Where in the young Arctic cities can experts for such delicate work be found? Nowhere. And so virtuoso drillers are carried over here by airplanes from Moscow, Kuybyshev and Kiev "to stand their watch." Thanks to them who have set up production of almost all of the needed components, and improved the parts and entire units placed into operation by the huge collectives of the famous giants. Thanks. But let's consider how much their labor costs, multiplied by the correction factors for work in Arctic conditions. Overhaul of, for example, a sludge pump using parts manufactured at the "Base" costs the association more than a new pump. And a pump must be repaired four times a year.

On the average, every article produced under local conditions costs two to three times more than in the heart of the country. But last year, just the three central bases of this one association manufactured products worth 57 million rubles. And how many such "Bases"

are there in other associations? And who has counted up the smaller bases, sub-bases and shops belonging to oil producing and drilling administrations of those same associations?

Yes, if we were to follow the laws of normal economics, we would have to shut down such costly production operations. But whoever said that our economy follows these laws? And this is why no reduction of subsidiary underground machine building is foreseen. On the contrary, new output capacities are being introduced, and the association is building its own foundry. As with any living organism, the oil sector is fighting for its existence. It is protecting itself and us, its consumers, from the vagaries of supply and deliveries.

But will this safety system last long enough? Even under the shadow of oil gushers, after all, there is no way that we can reproduce the entire world economy.

**Production Figures, Pipeline Break Reported**  
*18220120 Baku VYSHKA in Russian 12 Apr 89 p 3*

[Article from the Petroleum and Chemistry Division of the newspaper VYSHKA: "The Plan Exists, but the Profit...: Commentary on the Data Summary"]

[Text] For three months in a row all the petroleum- and gas-extracting administrations in this republic have fulfilled the state orders with respect to extracting petroleum and gas. In March the offshore rigs produced an additional 13,700 tons of petroleum and 38 million cubic meters of gas, whereas during the first quarter, the respective figures were 20,700 tons of petroleum and 89 million cubic meters of gas.

The indicators of the land-type petroleum producers are considerably more modest.

The greatest additions were attained by the NGDU [Petroleum- and Gas-Extracting Administrations] imeni 22nd CPSU Congress, imeni Serebrovskiy, and imeni Narimanov. Having begun offshore drilling using their own efforts, the Artemneftegaz NGDU also improved the situation with regard to delivering gas.

The above-plan amounts extracted by the offshore drillers could have been even more substantial if an accident had not occurred on the underwater pipeline at the Deposit imeni 28 April. Because of it, more than 10 wells were turned off for a lengthy period of time. Such accidents happen in all countries which conduct offshore drilling for petroleum. But if abroad experience has been accumulated with regard to the underwater repair of pipes, Azerbaijan does not yet have at its disposal either the equipment or technology for this. They have learned and profited from the resourcefulness and boldness of divers. However, when the pipelines ripped apart, petroleum poured out into the sea. How can we guarantee that reliable work will be done on such underwater pipelines? This question is answered below by P. Gurtovenko, chief

of the Division of Diving and Underwater Work, and S. Abasov, chief of the Petroleum-Extraction Division of the Kaspromneftegaz PO [Production Association]:

"A year and a half ago we concluded an agreement with the Institute of Electric Welding imeni Paton of the UkSSR Academy of Sciences. We are developing methods for 'wet' welding during the operational repair of pipelines at depths of as much as 120 and then at 200 meters. The institute has trained 12 electricians for us from among a number of divers.

"The association has conducted experiments with regard to eliminating cracks and honeycomb-type flaws when pipes are in a horizontal position at a depth of 45 meters. The broken sections of the pipes, after being welded under water, are studied in the laboratories.

"In order to conduct major repairs by the 'dry' method, an underwater, hyperbaric welding complex has been ordered from abroad and will be imported soon. Likewise this year we are expecting the arrival from Finland of a ship entitled the 'Skat,' which has been specialized for diving. At the same time a Finnish firm had trained four divers. With the arrival of the new equipment, reliable work on the deepwater pipelines will be guaranteed."

The land-type petroleum- and gas-extracting administrations, having fulfilled a lightened plan for the first quarter re the extraction of petroleum and gas, have not created any new starts for implementing increased tasks during the next few months. In the second quarter they must increase the daily pumping yield of petroleum by 220 tons, in the third quarter—by another 500, and in the fourth quarter—by 3,424 tons over the amount obtained in the first quarter. Are we capable of making such an upward leap?

T. Mamedov, chief of the Kirovneft NGDU, states the following: "During the first quarter we increased extraction by 5 percent, i.e., 1200 tons above plan; and in April we will achieve just as much. But to reach an increase of 17 percent, or 40,000 tons of petroleum, is unrealistic...."

The situation at the Azizbekoneft NGDU is analogous, although the latter has extensively developed the drilling of new wells by its own efforts, and is finishing up the construction of a compressor station; it has converted one outfit to full cost accounting.

In brief, it has been a difficult year for Azneft. The economic indicators have become worse. Instead of the planned profits for two months, there have been losses. The Leninneft NGDU was 679,000 rubles short on its profits, whereas the NGDU imeni 26 Baku Commissars was short by half a million.

Just two years ago the largest NGDU—Shirvanneft—also yielded the greatest profit. Last year it was “at zero,” and for two months of the present year its activities resulted in 424,000 rubles of losses. Why? The extraction of petroleum and gas was sharply reduced. But outlays for the operation of wells, shop expenditures, and amortization deductions, in contrast, have not decreased.

To this we must add our own negligence and mismanagement. Because, after all, when fulfilling the state orders for extraction in Shirvan during March, petroleum production by the UZMN [?] was cut short by an amount equalling 2,784 tons: they did not succeed in refining it and preparing it for transport.

Many of Azneft's specialists became accustomed to working in the old way.... Is this not attested to by the fact that Exploratory Well No 64, drilled to a depth of 5,550 meters in the Kyursang Area, which provided a short-term, industrial inflow of petroleum from the previously unused 14th level, could not be utilized because of intensive plugging. After opening up a new

deposit, they discovered yet another problem: at Azneft they had not learned how to regulate a well system with high pressure—amounting to 500 atmospheres.

A reliable source of profits is to produce petroleum at the prime quality grade—the markup for each ton of such petroleum amounts to 50 kopecks per ton. Furnishing such fine petroleum are these same NGDU's: imeni Serebrovskiy, imeni 26 Baku Commissars, Azizbekoneft, and Artemneftegaz.

But here Neftyanyye Kamni produced 18,600 tons of sub-standard products. On each ton the administration lost 6 rubles—and a total of 101,000 rubles from its own profits. Such things occurred on more than one occasion last year.

For the second quarter there has been a sharp increase in the state order with regard to the offshore drilling rigs: they must increase extraction by 82,000 tons, whereas during the third and fourth quarters they must increase by another 63,000 tons. They must not slacken.

Division of Petroleum and Chemistry of the Newspaper VYSHKA

**Petroleum and Gas: How Extraction Is Proceeding: Data of the AzSSR State Committee on Statistics with Regard to Fulfilling the Plans for Extracting Petroleum and Gas for March 1989 by the Azneft and Kasmorneftegas Associations**

	(as a percentage of the plan)			
	March		January-March	
	petroleum extraction	gas extraction	petroleum extraction	gas extraction
Azneft Association	101.6	109.2	100.9	110.4
Lenineft NGDU (chief: Ya. Shrinov, party org. secretary: A. Guseynov)	100.0	100.1	100.1	100.2
NGDU imeni 26 Baku Commissars (K. Kerimov, R. Mamedov)	100.6	122.2	100.7	124.2
Kirovneft NGDU (T. Mamedov, I. Ibragimov)	108.9	118.3	104.0	114.5
Azizbekoneft NGDU (T. Gasanov, R. Ragimov)	100.4	104.5	100.4	105.2
Siazanneft NGDU (R. Atababayev (acting), S. Akhmedov)	100.4	123.6	100.4	122.4
Shirvanneft NGDU (M. Kamilov, A. Gasanov)	100.0	100.3	100.1	108.0
Salyanyneft NGDU (F. Guseynov, A. Isayev)	107.0	101.1	103.4	101.1
Kaspmorneftegaz PO	101.6	104.4	100.8	103.4
NGDU imeni 22nd CPSU Congress (S. Ibragimov, K. Aliyev)	101.8	100.0	100.6	100.0
Artemneftegaz NGDU (B. Khalilov, T. Azizov)	100.0	108.0	100.0	107.1
NGDU imeni Serebrovskiy (R. Kurbanov, F. Veliyev)	100.9	103.5	103.1	104.0
NGDU imeni N. Narimanov (G. Gumbatov, E. Mamedov)	101.0	106.3	101.1	103.1
Total for both associations	101.6	104.6	100.8	103.8

## ELECTRIC POWER GENERATION

### Model of Khozraschet for Electric Power System Proposed

18220105 Moscow *EKONOMICHESKAYA GAZETA*  
in Russian No 16, Apr 89 p 9

[Article by V. Layko, laboratory chief of NOT [scientific organization of labor] and the Administration for the Production of Municipal Energy Service, candidate in Economic Sciences: "A Model for Power Engineers"]

[Text] The weekly issue No 50 for last year published an article by A. Mayorets, minister of Power and Electrification, "Otrasl na puti k polnomu khozraschetu" [The Sector Is on the Path to Full Cost Accounting]. I should like to continue this subject, and to dwell on a key problem—introducing the new principles of cost accounting into power engineering.

The author writes that the global transition was preceded by an initial experimental transition to full cost accounting for seven power systems and a number of other subdivisions. Indeed, there was such an experiment. In the opinion of the practical workers, however, it did not bring the desired result (this was the topic of a special meeting held at Kiev). The collectives of the power systems did not, under the new conditions, obtain the necessary independence or sufficient economic interest.

What is the matter? It appears that the cost accounting model used does not provide the possibility of accurately determining the contribution of a certain specific work collective in the total results of its work. The point is that all seven power systems are included in the USSR YeES [Unified Power System] and act in parallel, and therefore the profit of a certain specific power system is the service, not of an individual collective, but the result of the combined work of all the power systems in the sector. In this case, can the power system be the basic cost accounting unit in the sector? After all, this is the precise calculation on which cost accounting in electric power engineering is being constructed.

In my opinion, the principles of full cost accounting can be developed within the framework of the territorial power associations or on the whole for the USSR YeES. When a centralized administration is retained for power production, a different method must be found to ensure the economic independence of the subdivisions of the YeES, and this means, a new model of cost accounting.

Why a new one?

Because, if the electric power plants or power systems worked in isolation from each other, with their transition to full cost accounting and self-financing, it would be enough to choose the first or second model of cost accounting, and the problem would basically be solved.

With parallel work, however, neither the one or the other model solves anything. The so-called third model, which lease contracting now means, cannot help to solve the problem.

Where is the solution? Apparently, it should be a question of intraproduction cost accounting, which can be organized on a functional basis.

The soil has been sufficiently prepared for solving this problem. Already, among the planning indicators for electric power plants, the power indicator has been introduced, and for the power systems—the corresponding efficiency factor of the installed power. These indicators are taken as fund-forming in economic stimulation. Therefore, it is actually acknowledged that the value of the operating power is the end result of the activity of the collectives of the electric power plants and power systems.

What is needed to make the model of functional cost accounting a working one?

This, in my opinion, requires the funds necessary to ensure the economic activity of the power system, to be put at its disposal in the form of two components. One part should be formed according to the norms of expenditures per unit of operating power of the power system (the norms should be sufficient to cover the expenses, ensuring the fitness for duty of the production capacities and relaying devices, form the economic incentive funds and introduce payments to the state budget for the production funds, natural and labor resources). This will encourage better use of the rated capacities and contribute to stabilizing economic activity of all the subdivisions of the power systems.

The second part of the funds, equal to the cost of the fuel to produce electric and thermal power, must be transferred to the power system (in accordance with the assigned production volume of these types of power) according to the actual prices for fuel and the norms for fuel consumption during their production.

In connection with this procedure for accounts, the cost accounting relations between the territorial energy associations and the power systems would change. The power system would transfer to the territorial association the entire sum from selling electric and thermal energy. The revenue of the power system in this case would be determined by the difference in the funds obtained according to the norms, and the actual expenditures.

This model of cost accounting ensures combining centralism in power production administration with the economic independence of all the energy subdivisions: from the power systems to the production brigades inclusively. The production cost accounting relations will be carried out in accordance with the relations that have formed between the energy subdivisions.

It seems to me that the model of functional cost accounting may prove to be the only reliable means of solving problems when the ramified economic relations between the enterprises make it impossible to establish clear-cut boundaries of responsibility for each individual collective. Just as any other, however, this model of course needs to be proven in practice.

**Modeling Method for Testing Nuclear Power Plant Safety Proposed**

18220126 Moscow

*MATERIALNO-TEKHNICHESKOYE*

*SNABZHENIYE in Russian No 4, Apr 89 pp 44-45*

[Letter to the editor by G. Pasternak, engineer: "The Genie in the Bottle"]

[Text] The tragedy of Chernobyl has to be fresh in all our minds. People died because of the accident at the AES, and when it comes to property damage, it runs into the billions of rubles. The disaster has reverberated with a bitter echo as the socioeconomic programs of restructuring have been implemented and the plans of the 12th FYP have been carried out. Surely not even a storybook genie could have done that.

Immediately after Chernobyl voices were heard as to the necessity of halting construction of AES's and even of eliminating those in place. There would seem to have been rather weighty justification for such recommendations. Yet our country's energy program, in accordance with the decisions of the 27th party congress, calls for further development of the network of nuclear power plants to generate electric power and produce thermal energy and on that basis make a substantial amount of organic fuel and other natural resources available for other use. Heeding the appeals would mean stoking up the furnaces with bank notes and robbing ourselves for who knows how many more years. Nor will world scientific-technical thought be dallying.

What is to be done in this situation, which is frankly not an ordinary one? It would seem that first of all we need to give up the practice which has now become habitual of shying from one extreme to the other and should soberly evaluate the possibilities that are open. We can and must give up the plunderous project to turn northern rivers to the south, but we cannot fail to make use of the possibilities that actually exist and are environmentally safe to bring water to the soil. Otherwise, a country which has more land than anyone will end up importing grain from other countries. It is the same with energy.

Operating experience demonstrates that the large structures of the AES, in particular the pressure vessels, which operate in a wide range of pressures and temperatures, have a high risk of brittle failure. This occurs at a certain operating temperature that depends upon various technological and working parameters. It is an extremely complicated matter to conduct tests of large structures over a broad temperature range. Such tests involve large material expenditures, and it is no surprise that operating personnel are extremely reluctant to undertake them, sometimes teetering on the edge or even over the edge of allowable risk. But there is a way out.

Methods of simulating full-size structural components and specimens for calculating strength and reliability and for determining the operating life of reactor equip-

ment by means of the fundamental laws of solid-state physics could provide a way out. This kind of simulation guarantees reliability of the structural component within the given operating patterns and at the same time greatly reduces the material consumed in research. Testing in which large specimens, specialized gear and equipment are used with the standard pattern of the load assumes that existing small-capacity test stand equipment will be used and the material consumed in the specimens will be substantially reduced.

The essence of the matter lies in plotting the temperature dependencies of the critical coefficient of the strain rate over a broad range of specimen thicknesses and of determining the points of inflection that characterize the transition to brittle failures. The failure limit of the material being tested is then plotted for the next range of thicknesses. The results obtained make it possible both to obtain an evaluation of the critical state of the structural component and also to make recommendations as to selection of the operating temperature range. Experimental determination of parameters like these for a series of specimen thicknesses (thicknesses of the walls of vessels operating under pressure) makes it possible to issue exhaustive recommendations as to subsequent operation of structures and equipment.

The diagram plotted has been used in practice to determine the possibility of using structural components made of 15Kh2NMFA and 10GN2MFA hull steels. Comparative analysis of the critical temperatures of brittleness determined by standard testing methods and those developed confirmed the latter's high accuracy.

Thus, the particular example of developing a method of determining the temperatures of brittle strength failure of structural components using the basic principles of the linear mechanics of failure makes it possible to increase their operating life and, as already noted, substantially reduce the material consumed in the necessary tests, which do not require shutting down reactors for this purpose and do not otherwise have any influence at all on technological processes. The necessary prerequisites are thereby brought about for conducting them regularly, since operating personnel's wages, bonuses, and the like remain inviolable. Which means that the evil genie can be kept firmly corked in the bottle.

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**Decree on Armenian Nuclear Power Station Shutdown Published**

18220145 Moscow *SOBRANIYE POSTANOVLENIY PRAVITELSTVA SOYUZA SOVETSKIKH SOTSIALISTICHESKICH RESPUBLIK in Russian No 7, 1989 pp 145-149*

[Decree: "Collection of Decrees of the Government of the Union of Soviet Socialist Republics" (Sect. 1); signed by N. Ryzhkov, chairman of the USSR Council of Ministers and M. Smirtyukov, head of Affairs for the USSR Council of Ministers; in Moscow, 6 January 1989,

No. 15]

**[Text] Art. 20. On the Situation of the Power Unit of the Armenian AES and Measures To Ensure Power Supply for the Transcaucasian Republics**

The USSR Council of Ministers decrees:

1. In consideration of the general seismic situation related to the earthquake on the territory of the Armenian SSR, a proposal was adopted by the Central Committee of the Communist Party of Armenia, the Armenian SSR Council of Ministers, the Interdepartmental Scientific-Technical Council on Problems of Atomic Energy at the Bureau of the USSR Council of Ministers for the Fuel-Energy Complex and the USSR Academy of Sciences on the situation of the Armenian AES at a period earlier than stipulated. The first power unit of the electric power plant is to be shut down beginning on 25 February 1989 and the second power unit beginning on 18 March 1989.

The USSR Ministry of Atomic Power and the USSR Ministry of Medium Machine Building, with the participation of the USSR Gosatomenergoadzor are to develop, in January 1989, additional organizational-technical measures for safety in the units shut down and increased seismic resistance of the buildings and structures of the Armenian AES and to ensure their being carried out in 1989.

2. The USSR Ministry of Power and Electrification, the Georgian SSR Council of Ministers, the Azerbaijan SSR Council of Ministers and the Armenian SSR Council of Ministers, because of the shut-down of the power units of the Armenian AES, are to develop, with the participation of the interested ministries and departments of the USSR, and to confirm, in a 10-day period, measures to balance the production and consumption of electric power and capacities in the republics, and to ensure their strict fulfillment. They are to specify in the above measures, in particular, the assignments for all the enterprises and organizations, regardless of departmental jurisdiction, on additional conservation of electric power and a 20-percent reduction by them of the needed electric power in the hours of the maximum electric loads of the power system, through converting enterprises and organizations to a continuous work week with a shifting of days off, start and finish of work shifts, putting energy-intensive equipment in for repair in winter and also restricting the electric power consumption for municipal and everyday services.

Power supply organizations are permitted to define precisely contracts for the use of electric power concluded in 1989.

3. The USSR Ministry of Power and Electrification is to establish an assignment to increase the use of the established power of Transcaucasian electric power plants at 330,000 kw in 1989 and 230,000 kw in 1990.

4. The USSR Ministry of Power and Electrification, with the participation of the USSR Ministry of Atomic Power, the USSR Ministry of Heavy, Power and Transport Machine Building, the intersectorial Energomash State Association and other interested ministries and departments, are to:

Work out, and upon agreement with USSR Gosplan, confirm, in the first six months of 1989, expanded technical-economic substantiation for reequipping the Armenian AES as a thermal electric power plant and to determine the period for putting the power capacities at this electric power plant into operation;

Adopt additional measures to ensure putting power units into operation at the Rostov AES, No 1 in 1989 and No 2 in the first six months of 1991.

5. The USSR Ministry of Construction in the Southern Regions of the USSR is to fulfill, in 1989-1991, at the construction of facilities for production purposes of the Rostov AES, according to contractual procedure, with the USSR Ministry of Power and Electrification, 20 million rubles worth of construction-installation work, including 7 million rubles worth in 1989, and also to ensure constructing and putting into operation in 1989-1992, in the city of Volgograd, apartment houses with a total area of 70,000 square meters yearly, for the operations personnel of the Rostov AES and organizations of the USSR Ministry of Power and Electrification.

The Rostov oblispolkom and the USSR Ministry of Heavy, Power and Transport Machine Building are to ensure the transfer to the USSR Ministry of Atomic Power of the indicated apartment houses, the construction of which is financed according to the procedure of per-unit participation.

6. The USSR Ministry of Power and Electrification is to:

For the purpose of ensuring compensation for the shut-down capacities of the Armenian AES and the reliable power supply of the republics of the Transcaucasus, implement construction and putting into operation power capacities and electrical-network installations in the Transcaucasian republics according to proposals Nos 1 and 2;

In consideration of the shortened periods of planning and construction of the Razdan GRES and the reequipping of the Armenian AES into a thermal electric power plant to provide for the growing needs of the Transcaucasian republics for electric power, to permit the USSR Ministry of Power and Electrification to spend, for bonus payments for the work collectives of the planning and construction-installation organizations for fulfillment and overfulfillment of the assignments, up to 1 million rubles, including these expenditures in the consolidated estimated calculations for the construction cost of the corresponding electric power plants;

Complete the repair of power unit No 4 with a power of 200,000 kw, at the Razdan GRES, to be put into operation in January 1989;

Adopt measures for the fulfillment, in 1989-1992 (in the summer) of work on repairing, modernizing and reequipping the thermal electric power plants in the republics of the Transcaucasus, rendering the electric power plants the necessary assistance with material-technical resources and skilled repair personnel.

The USSR Ministry of Power and Electrification, the Georgian SSR Council of Ministers, the Azerbaijan SSR Council of Ministers and the Armenian SSR Council of Ministers are to create, in 1989-1990, enterprises to repair the equipment of the electric power plants of the Transcaucasian republics and are to:

Ensure, in the 3d quarter of 1989, the conversion of the Tkvarcheli GRES to natural gas;

Develop and confirm, in the first six months of 1989, planning documentation for construction, in the southern regions of the Azerbaijan SSR and Armenian SSR, electric power transmission lines with a voltage of 330 kV, necessary to increase the reliability of the electric power supply for the consumers, and to ensure construction of this line in 1990-1991.

7. The USSR Ministry of Power and Electrification and the USSR Ministry of Installation and Special Construction Work are to ensure the completion of construction and putting into operation, in the 3d quarter of 1989, smoke stacks 330 meters high for power units Nos 7 and 8 of the Azerbaijan GRES.

8. The USSR Academy of Sciences and USSR Gosstroy are to define precisely the seismicity of the territory of the Georgian SSR, Azerbaijan SSR and Armenian SSR, and in January 1989 are to issue to the USSR Ministry of Power and Electrification maps of the seismic regionalization, needed to plan power facilities and equipment development in these republics.

9. USSR Gosplan is to stipulate inclusion in the state order for 1990-1995, as are USSR Gossnab, the USSR Ministry of Heavy, Power, and Transport Machine Building, the USSR Ministry of the Electrical Equipment Industry, the USSR Ministry of Chemical and Petroleum Machine Building, the USSR Ministry of Instrument Making, Automation Equipment and Control Systems, the USSR Ministry of the Shipbuilding Industry and the sectorial Energomash State Association, provision of the manufacture and supply of equipment and items for construction of power facilities, specified by this decree, in the period and according to the technical assignments agreed upon with the USSR Ministry of Power and Electrification and the USSR Ministry of Atomic Power.

The Bureau of the USSR Council of Ministers on Machine Building and the Bureau of the USSR Council of Ministers on the Fuel-Energy Complex are to give precise definition to the State order for supply of the above equipment in 1989.

10. The USSR Ministry of Power and Electrification and the USSR Ministry of the Electrical Equipment Industry are to fulfill plant repair of hydrogenerator No 5 of the Mingechaur GES, and it is to be put into operation in the 3d quarter of 1989, with subsequent replacement of this generator with a new one, in accordance with the established procedure.

11. The RSFSR Council of Ministers and the Georgian SSR Council of Ministers are to ensure, in the 1st quarter of 1989, allocation of land parcels for construction of the 500 kV electric power transmission lines specified by this decree, for the Inguri GES-Central, and in the first six months of 1989, by the forces of the subdepartmental organizations, to fell the trees and clear the cuttings for this line.

12. USSR Gossnab, in order to ensure prompt manufacture of the metal structures for the main wing of the Razdan GRES, and in consideration of the increase in construction-installation work volumes, is to allot in 1989, to the USSR Ministry of Power and Electrification, as the target purpose, in the first six months of 1989, an additional 10,000 tons of rolled metal and 30,000 tons of cement (through redistribution among consumers), in accordance with the specifications presented by this ministry.

13. Establish natural gas and as a reserve—furnace residual fuel oil, as the basic type of fuel for the Azerbaijan GRES (expanded section), the Novoozerbajjan GRES, the NovobakuTETs, the Yerevan TETs-2 and the electric power plants created on the basis of the Armenian AES.

The USSR Ministry of the Gas Industry is to fulfill, in the first six months of 1989, the preplanned development of the necessary expansion of the gasline systems transporting gas to the Northern Caucasus and Transcaucasus, based on providing gas for the electric power plants specified by this decree, and is to present proposals on the problems requiring solution by the USSR Government to the USSR Council of Ministers.

The USSR Council of Ministers considers the fulfillment of the assignments specified by this decree to be a particularly important State task and rests the personal responsibility for their being carried out strictly in the established periods on the directors of the appropriate ministries and departments of the USSR, the councils of Ministers of the union republics, and the enterprises and organizations.



### Ecological Problems Posed by Thermal Power Station Debated

18220107 Moscow SOVETSKAYA ROSSIYA  
in Russian 26 Apr 89 p 3

[Commentary by A. Semenov, deputy minister of power and electrification, and opinion of A. Kononov and M. Kryakov, candidates of technical sciences, and engineer B. Vinokurov, members of the commission for ecological expertise of the Public Committee to Save the Volga: "Build the Northern Thermal Power Station Or Not?"]

[Text] The USSR Ministry of Power and Electrification reviewed the article "Newcomers in Mytishchi" published in the newspaper SOVETSKAYA ROSSIYA on 22 February 1989. The Northern Thermal Power Station [TETs] of Mosenergo is being built in accordance with the "Plan for the Heat Supply of the City of Moscow Through the Year 2000" to cover the growing heating loads of the northern sector of the capital. The site for the construction of the TETs was chosen in 1984 by the Moscow City Ispolkom, Moscow Oblast Ispolkom and the USSR Ministry of Power and Electrification with the participation of the Moscow-Oka Basin Inspectorate for the Utilization and Conservation of Water Resources, the Central Directorate for Fish Breeding Expertise and Standards for the Conservation and Reproduction of Fish Stocks, the directorate of Moscow Canal, Moscow Oblast Sanitary and Epidemiological Station, Moscow City Sanitary and Epidemiological Station, the fire protection directorate of the Main Directorate of Internal Affairs of the Moscow Oblast Ispolkom, the Civil Defense staff, the Main Architectural and Planning Directorate of the city of Moscow, and other interested organizations.

In choosing the site, consideration was given to such factors as the maximum proximity to the consumers of heat, the possibility of erecting high smokestacks taking into account the requirements of the USSR Ministry of Civil Aviation, and the direction of the wind in relation to housing developments. The Northern TETs project was formulated in 1986 and approved by the USSR Ministry of Power and Electrification on 21 December 1987.

For the purpose of the maximum reduction of the harmful impact of the Northern TETs under construction on the environment, the project provides for nature-conservation measures. To lower emissions of atmospheric pollutants, the primary kind of fuel for the TETs will be natural gas and the reserve fuel will be fuel oil. The most up-to-date equipment with improved ecological characteristics will be installed at the TETs. In the power blocks to be installed, it is planned to increase the number of hot-water boilers by a factor of 1.5 over the standard, which will make it possible to increase the thermal capacity of the power plant. For this purpose, there are plans to deliver turbines from the Ural Turbine Motor Plant modernized especially for the Northern TETs. It is planned to shut down the turbo-units to

reduce the output of electric power in the nonheating period. In addition, the construction of the 250-meter high smokestacks improves the dispersion and ecological situation in the city of Mytishchi adjacent to the TETs, where 70 small boiler houses with low smokestacks will be taken out of operation.

For the purpose of the rational utilization of water resources and their protection against pollution, it is foreseen that the Northern TETs will have an internal-drainage system that completely precludes the emission of industrial effluent into the Yausa River. The construction does not affect the village of Sgonniki and only partially affects the village of Chelobityevo. The project organization is also studying a version of the general plan the permits the maximum preservation of the village of Chelobityevo. The protective zone around an architectural monument, the Church of Zachariah and Elisabeth, is preserved in its boundaries.

In the project planning of the facilities of the dwelling microrayon No 14 in the town of Mytishchi, the placement of buildings and structures will be specified and coordinated with interested organizations in the established order. Dwelling houses for citizens resettled from the demolished villages of Volkovo and, in part, Chelobityevo are being constructed in accordance with the approved general plan of the town of Mytishchi. This is also a contribution of the USSR Ministry of Power and Electrification to the social program of the city.

Simultaneous with the project planning of the Northern TETs in 1985, on the instructions of the Main Architectural Planning Directorate of the city of Moscow, a project was drawn up for industrial development in the zone of the construction of the TETs. In particular, it is planned to build garbage disposal and paving asphalt plants, an aeration station and other facilities.

### Opinion of Experts

It is well known that Mytishchinskiy Rayon is a "factory" of fresh potable water and fresh clean air for the capital. Nature there needs to be guarded like the apple of your eye. Meanwhile, one cannot speak of any ecological justification for the Northern TETs. One cannot consider the collection of signatures of "interested organizations" a justification. Here is some information for consideration: at the Northern TETs (according to the project), it is planned to burn more than 11,000 tons of fuel (gas and fuel oil) daily. This means that every day in the burning of fuel oil they will emit more than 540 tons of sulfur dioxide, 65 tons of nitric oxides, more than 2 tons of ash, 200 kilograms of vanadium, toxic heavy metals, radioactive elements and benzopyrene and, in the burning of gas, 50 kilograms of sulfur dioxide, 30 tons of nitric oxides and more than a ton of ash. Fuel oil, the "reserve fuel," will be used during 20 percent of the annual time with increased use

in the winter period. This means that the most toxic discharges will accumulate in the snow cover over large surfaces of reservoirs, forests and agricultural lands.

As for the assertions about "up-to-date equipment with improved specifications," the project plan of the TETs does not contain any fundamentally new solutions at all from the point of view of ecology. The boilers incorporated in the project plan have not even been assimilated by industry. The increase in the number of hot-water boilers at the Northern TETs is not justified in any way: it may lead to a 25-percent increase in emissions.

The use of 250-meter stacks, which the response of the Ministry of Power and Electrification presents as a bold action, will lead to the long-range transfer of harmful substances, which is in conflict with the International Convention on the Limitation of Emissions Producing Acid Rain. The convention was also signed by our country.... In putting up 250-meter stacks, a polluted cloud of harmful gases and dust will contact the ground within 1 to 5 km and a concentrated effect will cover a zone of 4 to 16 km. Mytishchi and Kaliningrad will be under a 100-percent toxic effect, as will the national park "Moose Island" and the system of reservoirs near the capital. The ring of maximum toxic effect will also cover part of Klyasminskoye Reservoir, the northern green block and the northern dwelling regions of Moscow. The ring of medium toxic effect will cover an area with a radius of 16 to 20 km, including all of Klyazminskoye and Pestovkoye reservoirs, the entire southern part of Mytishchinskiy and Pushkinskiy rayons, the western part of Shchelkovskiy and the northern part of Balashikhinskiy rayons, and the entire northern half of Moscow, beginning at its center. The entire circle of unfavorable effects from the Northern TETs will cover a huge area with a radius of 24-26 km, including 70 percent of the territory of the capital and a large part of Mytishchinskiy, Shchelkovskiy, Pushkinskiy, Balashikhinskiy and Khimkinskiy rayons of Moscow Oblast.

Moreover, they are trying to build this TETs at a time when the ecological situation in Moscow has already become critical. Every day industry here discharges about 3,000 tons of nitric and sulfur oxides and solid particles. Automotive transport, numbering about 1 million vehicles (680,000 from Moscow and 300,000 from outside the city) adds approximately another 4,000 tons of such substances every day. More than once there has been a dangerous meteorological situation that put the population on the verge of a tragedy. For many components, the concentration of emissions in the city is several times the allowable limits and some standards are exceeded by tens or hundreds of times. Acid rains are literally "watering" the city and its environs. Because of the pollution and dust, we are more and more often observing an aeroionic deficit, that is, "dead air" forms. And this is not all. The green lungs of the city, including in the north, are 15 to 20 percent affected by necrosis of leaves and coniferous needles. If the environmental pollution continues, then the forest plantings will live no more than 15 years.

We think that it is quite inadmissible to build ecologically dangerous facilities like the Northern TETs under the existing situation. For the well-being and health of people, the building of this TETs and industrial zone around it must be stopped immediately. We are not even mentioning that it is time to stop the demolition of settlements and villages and hamlets, even if it is only "partial."

Besides what has been said, we can add that the project does not at all consider the peculiarities of the geological structure of the territory—the high level of aquiferous layers in connection with stratal fresh water. The building of a fuel oil installation of the TETs and other facilities in the industrial zone will inevitably lead to the pollution not only of subsoil water but of artesian stratal water as well.

We emphasize once again that the extensive expenditure approach to the development of energetics in Moscow and in other places must be rejected as obsolete and that one must make more careful use of the energy that the city is already generating, the losses of which reach 70 to 80 percent.

## CONSERVATION EFFORTS

### Paton Urges Stronger Energy Conservation Measures

18220138 Kiev *ENERGETIKA I ELEKTRIFIKATSIYA*  
in Russian No 2, Apr-Jun 89 pp 1-2

[Article by UkSSR Academy of Sciences President B.Ye. Paton: "The Priority Area—Power Conservation"]

[Text] The successful incarnation of the policy of profound transformations should rely on the mighty power-engineering complex, reacting quickly to the achievements of scientific and technical revolution. This is connected with the special place occupied by power engineering in our country. The USSR is the sole major developed nation that relies only on its own fuel and power resources. A fifth of the fuel currently utilized around the world is used in our country, while the national income of the USSR comprises less than a fifth of the world level, testifying to its great energy intensiveness. Our economy is unfortunately developing to a considerable extent along extensive lines as before.

Notwithstanding the obvious successes in the extraction and production of energy in our country, the shortage of fuel and power resources has not been overcome. The preservation of prevailing trends in energy consumption will moreover lead to a worsening of the existing shortage, since no state, including the USSR, is able to maintain such a high rate of extraction of power carriers for a long time. Further advances along the path of extensive development of power engineering are leading to a dead end with all of the attendant geopolitical and economic consequences.

In evaluating the overall economic situation extant in the country and the contemporary state of the fuel and power complex, it can be concluded that today we have reached a threshold requiring a profound re-interpretation of the path we have covered and the building of modern concepts for the further development of the power potential of the USSR that takes the whole set of accumulated problems into account.

The most important areas of its development are:

- the rational, efficient and completely substantiated development of the fuel and power complex and the sectors of it—the coal, petroleum and gas industries and electric-power engineering;
- the achievement of optimal balanced levels of utilization of fuel and energy, first of all through the pursuit of active and genuinely energy-conserving policies;
- a marked reduction in the harmful effects of power engineering on the environment and an increase in the share of ecologically pure sources of energy;
- an acceleration of operations for the assimilation of new and renewable energy sources and their real involvement in the power equation in appreciable volumes.

A material constituent element of the country's power engineering is the fuel and power complex of the Ukrainian SSR. The extraction of coal in the republic totaled 192.1 million tons in 1987, while the production of electric power was 281.4 billion kWh [kilowatt-hours]. The limited reserves of fuel in the republic and reductions in the level of their extraction are at the same time leading to a steady decline in the self-sufficiency of power resources.

There could be many variations for eliminating this shortage, but we will consider the most important of them—the development of AESs [nuclear power plants] and energy conservation.

The program of AES development is being realized quite actively in the UkSSR. It is well known that over 10 years the start-up of AES capacity in the Ukraine totals roughly 50 percent of that of the European part of the country overall.

Questions of the development and disposition of AESs should have comprehensive scientific substantiation, especially in areas with limited ecological capacity such as the Ukraine. Many of the proposals of planning organizations for the construction of AESs have unfortunately been insufficiently thought out and substantiated. This is testified to by the Chernobyl tragedy, the climate that has taken shape surrounding the Crimean AES, the problems that arose at one time at the Rovensk AES and the refusal to construct the Chigirin AES and the Odessa ATETs [atomic heat and electric power plant].

It is undoubtedly also important to take into account experience in the development of nuclear power engineering abroad, especially in the area of the tendency to concentrate capacity at a single site and the achievement of optimal unit capacity of the power units, among others. It is essential to take into account that the territory of our country makes it possible to consider this issue in many ways. This great advantage of ours compared to Western European countries is still clearly being insufficiently utilized.

The promise and importance of the development of nuclear power, obvious and acknowledged by all, should not lead to the idealization of it. There are many complex and unresolved problems herein. The problems of safety and reliability of nuclear reactors, the burial of radioactive waste and the shutdown of power units that have completed their service lives, which we are approaching in realistic fashion in the republic, have not been solved in particular. An intelligent and scientifically, economically and technically reasoned approach should predominate in the resolution of this issue.

Energy conservation is an alternative version to the unjustified growth of power consumption and an important constituent element of the economic policy of the developed countries, and they have achieved great successes in this realm. We have still not achieved any appreciable shifts in fuel and power economy, which has given rise to the necessity of a marked and urgent intensification of energy-conservation policy.

The three principal elements of it can be noted briefly.

**First.** This is the whole set of scientific, technical, organizational and economic measures to raise the efficiency of energy utilization. They include, first of all, questions of managing energy conservation, utilizing a series of economic measures and controls, creating a legal system regulating the utilization of energy resources (as for any other types of resources) and, first and foremost, developing and broadly incorporating energy-conserving technologies. The discussion concerns not only new technologies, but also some already assimilated but on an exceedingly small scale. For example, the share of continuous casting of steel in the UkSSR was 7.6 percent in 1980, but by 1985 it had declined to 6.9 percent. This technology was developed here in this country, but the scale of it is significantly greater abroad: about 93 percent in Japan, 62 in West Germany and 58 in France.

The recently conducted inventory of energy-conserving developments of the institutes of the UkSSR Academy of Sciences has shown that some 40 percent of the overall number are technological developments in which the share of new technologies in turn is 80 percent. But even their complete incorporation is as yet unable to have any fundamental influence on the level of consumption of energy resources in the republic. A marked expansion of these operations is required both at the institutes of the

UkSSR Academy of Sciences and at sector research organizations. It must unfortunately be noted that promising highly efficient energy-conserving technologies that are ready for incorporation are still quite few in number.

**Second.** Under conditions of unjustifiably energy-intensive production patterns, an important constituent element of energy-conservation policy should be the pursuit of a purposeful structural restructuring of the economy based on scientifically substantiated recommendations that take into account the whole range of socio-economic factors and the nationwide and international division of labor. Plans and tasks in the realm of energy conservation therein should be closely tied to plans for the comprehensive development of sectors of the national economy. A reduction as well as a stabilization of energy consumption could be achieved as the result of such a restructuring.

**Third.** A no less important aspect of energy-conservation policy is a reduction in materials-intensiveness, having in mind both a decrease in the consumption of materials, especially energy-intensive ones, and a decrease in the direct energy expenditures for their production.

Had we reached by today the energy-intensiveness indicators of the developed capitalist countries, the annual

economy of electric power alone in the Ukrainian SSR would have totaled roughly 27-30 billion kWh, that is, about seven Chernobyl AESs. The correct structure of industry has enormous significance in the Ukraine. It is impossible to develop heavy industry as before. Its capacity should be stabilized. Priority should be assigned to scientifically sophisticated types of production. That is the sole scientifically well-founded conclusion.

The program being formulated at the USSR Academy of Sciences for developing research on the basic problems of power engineering to the year 2000 will doubtless facilitate a unification of efforts of the power-engineering scientists in developing the problems of the fuel and power complex. It would be correct if each academic institution of a power-engineering type were to concentrate its efforts within the bounds of a few directions of research, in which they could truly occupy the leading position in the country and accomplish the coordination of all developments in that realm. Such a program will make it possible to impart a creative impetus to the multifaceted activity of developing a contemporary and highly efficient fuel and power complex whose principal component should be genuine energy conservation.

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**Labor Resource Utilization in Central Asia  
Assessed**

18280116 Moscow *LITERATURNAYA GAZETA*  
in Russian 19 Apr 89 p 12

[Article by V. Perevedentsev on the need for industrialization in Central Asia: "Industrialization the Only Recourse"]

[Text] Central Asia is the most troubled region of the nation. One of its main features is a remarkably rapid population growth. In 1987 the natural population growth in Uzbekistan was 30.1 people for every 1,000 inhabitants, and in Tadzhikistan it was 34.9, at a time when the growth rate for the nation as a whole was 9.9 and in the Ukraine it was as low as 3.4 people per 1,000 inhabitants. In all Central Asian republics the population reproduces on a large scale, while in the republics of European Russia and the Russian Federation population growth has long been declining; in other words, not enough children have been born to replace their parents' generation.

Another of the most important features of Central Asia is its pronounced socio-economic backwardness. The population of Central Asia remains primarily rural, and in Tadzhikistan the proportion of rural inhabitants has lately been growing rather rapidly and now makes up two-thirds of the population of the entire republic. Within the national-economic complex, industry has a very small share, and within that share there are few plans for modern, long-range branches. Social labor productivity in the people's economy of Central Asia comes to about half of the nation's average level of productivity. Correspondingly, the standard of living is low (despite conjectures and legends of various sorts). According to every index of well-being, Central Asia occupies the last place among all of the Union republics.

A low standard of living, socio-economic backwardness, and the retention of the patriarchal family are the most significant factors in creating a high birth rate and natural population growth. However, regardless of widespread opinion to the contrary, the birth rate in Central Asia is declining, and rapidly at that. While between 1970 and 1971 there were 201.5 births for every 1,000 women between the ages of 35 and 40, from 1985-1986 there were only 102.6 births. The long-term demographic development of Central Asia will depend to a decisive degree on its socio-economic progress.

The present situation in Central Asia was to a large extent caused by an erroneous economic strategy, the basis of which was the plan for extensive agricultural development. One has frequently heard from various rostra the same refrain: that not every region is meant to be industrial; that some republics can be agricultural instead; and that the most important thing for Central Asia is its "white gold" [cotton], etc.

Such conditions have led to Central Asia's increasingly greater backwardness in relation to the nation's other republics. On top of that there have been widely publicized cases of upward distortion of results achieved, corruption, and abuse of power. As a result, if in the mid-1980's the nation could be said to be in a pre-crisis state, then Central Asia is undoubtedly already experiencing an acute crisis.

The present direction in economic development has led to a significant amount of unemployment. High unemployment is visible in cities, but not in villages (where there is agrarian overcrowding). An immense growth in manpower will continue until the end of the century, while in other parts of the nation the growth rate will be very small, with some areas showing a noticeable decline in manpower.

According to the 1979 census, for every 100 adults between the ages of 40 and 50, there were 328 children below 10 years of age in Uzbekistan. In the RSFSR there were only 102.

In order to put people to work for the national economy, millions of new jobs must be created. This can only be done in industry. The only viable path to effective socio-economic development in Central Asia is accelerated industrialization and, on that same basis, accelerated urbanization. Even in the Central Asian republics themselves, few realize this. When I participated in the expedition "Aral-88," even in the most overcrowded areas I often heard quite highly-placed leaders claim that the local population has been and will be used for agricultural production hereinafter. But this is absolutely impossible.

During the two months the expedition lasted we were repeatedly convinced that the present agrarian overcrowding has a very strong negative impact on the application of new and more effective methods of organizing labor in agriculture. "If we allot this parcel of land to him, then what will the others do?" We often heard phrases like this when talk began about family contracts. And as for leasing, we were unable to find a single instance of it, although local leaders continually assured us that their area had a number of lease-holders. We would visit a so-called lease-holder, and the "lease" would turn out to be a contract; moreover, a very primitive one.

There can be no effective economic development in Central Asia without a massive population flow out of the villages and into the cities, primarily those of Central Asia itself. And in order to achieve that, new jobs are needed in these cities. A sharp increase in the mobility of rural youths is also necessary. And in order to increase this mobility, a whole system of measures should be taken: a sharp improvement in public education, orientation of village school children towards the city from an

early age, preparation of village youth for "city" professions, organizational and economic aid for the relocation of young people to cities, etc.

Industrial development and urbanization will certainly lead to a swift decline in the birth rate, so we cannot exclude the possibility that in the future we will have to consider how to maintain the necessary level of growth.

The demographic situation determines the ecological politics here as well. It is impossible to save the Aral Sea. We can preserve it in a significantly diminished state. But we must immediately act to save people who are drinking polluted water.

The workers of Minvodkhoz [Ministry of Land Reclamation and Water Resources], whose actions led to a tragedy, in their latest technical-economic report write: "In the Pre-Aral by the end of 1995 we will accelerate the construction of a group of water-lines to the basins of the Amu Darya and the Syr Darya."

"Accelerate" by 1995! Such an acceleration of the project would ruin many thousands of people. It is difficult to tell what is most in evidence here—professional illiteracy, negligence, stupidity or the desire to cover the tracks of one's own perpetual mistakes.

The rapid population growth in Central Asia increases the anthropogenic burden on its water resources. Guaranteeing the population a safe water source should be a priority of all water use management politics in this region of the nation.

### **Plant Worker Questions Labor Demands, Strike Ultimatum**

*18280110 Moscow TRUD in Russian 5 Apr 89 p 2*

[Letter from A. Nekrasov, driver from the Kotlas Passenger Motor Transport Enterprise in Arkhangelsk: "Who benefits from strikes?"]

[Text] I am an ordinary driver. I'm not a hero of labor, although I try to work conscientiously. I'm not a member of either the trade-union committee or the council of workers. I'm not a communist. So no one could have commissioned me to write to this newspaper. I myself decided to write because I no longer seem to be able to find a common language with many of my comrades at work. And the events which have taken place in our collective are difficult for me to comprehend. So I felt it necessary to write about them.

About 100 drivers from motor transport column No. 1 of the Kotlas Passenger Motor Transport Enterprise wrote a letter to the city party committee which contains a number of demands for higher wages. The letter also cites abuses by the engineering staff. At the end of the letter is an ultimatum: If these and other problems are not resolved within five days, a strike will be announced.

I refused to sign.

Debates with the directors of the enterprise and with the head engineer of the amalgamation "Arkhangelsk Motor Transport," A. Skorokhodovyy, lasted several days. A commission of the city party committee worked on the problem and came to the conclusion that some of the demands were fair, but that wages were equitable. On the morning of March 28 the buses did not set off on their routes. Negotiations were resumed between the first secretary of the city party committee and the directorship of the enterprise. Arriving finally from Arkhangelsk were the head of the amalgamation Ju. Shirokikh and the chairman of the oblast committee of the branch trade-union, V. Bychkov. Mutual concessions began to be made, and passions gradually subsided.

Now we should examine this confrontation and say a word about strikes in general: what is their object and what results do they bring about?

The bus drivers were absolutely right to demand that the engineering staff should cease to be a privileged caste. They should not be driven to lunch in special buses when the dining hall is just across the street. And no one has given deputy head of the enterprise A. Volkov or head engineer V. Khomutnikov permission to drive around in a government car to and from the Vychedodskiy settlement, where they live. There are route buses for that.

I would vote twice over for the announcements of awards received by both workers and the engineering staff to be posted for all to see. There's no reason to make a secret of it. Like other workers, I am tired of discussing the same problems over and over again without seeing any kind of result. Let's take for example the length of our routes. The distance between the train station and the timber mill, every meter of which I have memorized from many years of working, is steadily decreasing, that is if we are to believe the operations department. And we're supposedly using less and less gas, although the road is becoming increasingly worse. You're so worn out from the road that the spoon trembles in your hand when you sit down to lunch. The time-table doesn't take traffic lights at the railroad crossing or at intersections into account, so you have to hurry, knocking the breath out of your passengers, to squeeze the whole route into the time allotted.

There are many claims made at our workplace as to the quality of maintenance and working conditions. Of course I wouldn't want to put everything about our enterprise in the worst light, as I have done so far in this letter. I've seen all kinds of things in my more than thirty years of work here, and I can tell you that there's no comparison between conditions today and what we had before. Heated workshops have been built, and there's more new equipment. We now have electric heaters which help to start motors in cold weather and many

other things as well. Of course, as things have improved, workers' demands have increased—that's perfectly natural. We just have to make those demands commensurable with our resources.

Let's take wages, for example. Bus drivers earn on an average 423 rubles per month. That's not bad, even for a northern region like ours. Ambulance drivers earn far less. Even taxi drivers from our concern earn about 90 rubles less than bus drivers. It goes without saying that repairmen fare worse: even with the northern hardship bonus they only receive 254 rubles per month. Meanwhile most of the bus drivers' demands in the letter had to do precisely with wage increases. How did they justify the demands? The action committee, consisting of T. Mamedov, S. Tulubenskiy, P. Popov and others, has proposed additional wages for the high efficiency standards of our services, standards which, speaking honestly, we are far from having reached. The committee demanded a fixed pay scale based on length of service, classification, and hours worked: in other words, the committee wants to make pay for labor independent of output. No good can come of this.

In a word, the gist of most of the demands in the letter was "Give me more!" As if money grew on trees or the government had become a kind of milch cow! You understand, I'm not against higher wages, but we shouldn't get them with ultimatums. We should earn them. But there's not a word in the letter about how to do that.

Our enterprise operates at a loss. Last year we took more than 100,000 rubles out of the government's pocket. So what, we're going to ask for more? Wouldn't it be better to see what reserves are available? Why, last year people traveling without tickets alone stole approximately 140,000 rubles from us. That money would have sufficed to raise wages and to meet other needs. But no one responded to enterprise director V. Martynov's request that workers help the four ticket inspectors. And without constantly checking tickets we can't avoid these losses. This in turn means we can't get out of the hole.

Reports of strikes are heard frequently these days. Miners have struck, so have workers in the timber industry... Not long ago the Arkhangelsk enterprise "Gorsvet" [City Light] truly shocked the entire oblast when its workers decided not to turn off the city's street lights until their demands were met. As a result of all of these strikes there was no increase, but a decrease in coal, cellulose, and paper as well. Hundreds of rubles worth of electricity were burned to no purpose. We should add to this our "contribution": on the morning of our strike hundreds of residents of Kotlas waited in vain for an hour for their buses, were late for work, and, along with their children, froze at the bus stops. Tell me, what are they guilty of? And why should we solve our problems at their expense?

Honestly speaking, I don't understand why so many workers' collectives lose their perspective and give way to an unhealthy atmosphere. Why, we live in a very crucial time. We have gone through four years of perestroika, the difficult work of breaking up the old, of introducing new economic relations, of improving the political structure of society. The recent elections of People's Deputies of the USSR are an indication of the positive changes taking place. However, many urgent problems are far from being solved and have even grown more pressing. Shortages have cropped up in soap and laundry powder; they've introduced coupons for sugar and other essential products. We lack the means to raise meager pensions. This means that somewhere plans are not being fulfilled and the wheels of the economic machinery are spinning.

M.S. Gorbachev has said repeatedly that perestroika is no simple process. And with all of our unanimity behind perestroika, there are different views on how to bring the changes about. I know that Mikhail Sergeyevich [Gorbachev] supports glasnost and a wide democratization of all spheres of life, and I support him whole-heartedly. But other voices are being heard as well. They claim that glasnost and democratization have already gone too far, and that people have gotten out of hand. First one group goes on strike, then another. They say, "This didn't happen before." I'm not much of a politician, but I'm convinced that strikes with the aim of getting a little extra, unearned income deliver a blow to perestroika and its ideas, which are having enough trouble as it is opening the way to change.

Every absence from work is a step backwards towards the recent past, with which the Soviet people are fed up. And you know, I think I'm not the only outsider in our motor transport column. While the majority of the workers were lounging around at their buses, disrupting the scheduled routes, driver F. Lubnevskiy set off on his route. I know that skilled worker N. Ponomarev condemned the unworthy methods the members of the action committee used. But even among the veterans there were those who signed the "ultimatum" without thinking. Several men decided to stay off to the side: they refused to sign the letter and asked for leave on the day of the strike, so as to avoid straining relations with the collective.

I understand that an appeal not to strike cannot alone hasten the solution to our problems. Responsibility for the fate of perestroika rests on the working class. We have no right to be either extortioners or detached on-lookers. The issue is how we can influence the state of things in our collectives. There's only one way: by using glasnost and democratization, the rights given to us by the Law of State Enterprises. I know I haven't said anything new—everyone knows this—but still people often show opposition to the principles of democracy. Take our action committee. They're young and, in principle, good guys. They picked themselves an energetic brigade-leader, T. Mamedov. He can stand up for

the workers' rights, but in matters of struggle he's inexperienced. So under the banner of the struggle for democracy, the committee proceeded to flout the fundamental principles of that cause. The action committee wasn't interested in the opinion of the majority of the collective. They stuck the letter under the drivers' noses as they were heading off on their routes, so there was no time to read it seriously. Many just signed hastily without fully understanding the demands being made.

Our "democrats" from the action committee didn't even discuss the letter with every brigade. That was a mistake. The workers probably would have crossed out some of the demands, but they would have added others. I would have suggested that a project of collective agreement should be posted far in advance of the conference where it's to be adopted. That way people can make sense of it all and not just vote indifferently for whatever is proposed. We have to solve our problems ourselves in the collective rather than rely on our "kind uncle" in the city party committee. Unfortunately, the initiators of our strike took a different route: even the announcement of the meeting where their demands were to be discussed was torn up, and they themselves did not show up. Such methods have nothing in common with democracy and glasnost.

In the course of this conflict another startling fact emerged: neither the party bureau nor the trade-union committee knew about the fomenting discontent among the workers. Our party leader B. Popov and the trade-union leader V. Bozhedomova were regularly holding meetings with their activists, who are far removed from our concerns. I don't remember a single instance in which the opinions of members of the party bureau or the trade-union committee were shared with or brought up for discussion by the whole collective. Evidently, full unanimity and mutual satisfaction reigns among them. And the workers' collective council doesn't hold counsel with its own collective. The workers chosen in our elective organs are simply great, but people don't see them as defenders of their rights. I think the trade-union committee should forward candidates like T. Mamedov and D. Yelezov. They may not be entirely predictable—they are sometimes explosive—but they have strong ties to the collective. There's nothing to be afraid of with them. Let's have not only the elite of the working class, but also those who have been passed over for wage increases and other bonuses expressing their views. They'll probably rouse our organizations out of their slumber, and we'll learn to avert confrontations rather than wait until issues come to a head.

There's something else I'd like to say. In this time of glasnost we sometimes know more about the activities of our General Secretary and Chairman of the USSR Council of Ministries than we know about the directorship of our own oblast. The head of "Arkhangelsk Motor Transport," Ju. Shirokikh, visits us seldom, and the chairman of the trade-union oblast committee—V. Bychkov—even less frequently. Before meeting with workers they don't

condescend to share their ideas on the prospects of developing a branch. They give a shrug, and that's the last you see of them. They should show directors like that more often on local television so that we know them by face. As a result of this armchair style of leadership the workers aren't heard, unless they resort to noise, i.e., a strike.

I know that not everyone in our collective agrees with me. Some will say, "See? We got the pay increase without any of your trade-union committees or STK [Sector of Technological Control]. We beat the bureaucrats." Sure, we got it, but at what price? The city's enterprises lowered their production by 15,000 rubles because of our strike. That means we're undersupplying other cities. That in turn affects the output of goods for the population. We've extracted money from the government's pocket for a pay increase, won by force, of more than a thousand rubles. But we haven't improved our own work by a single kopeck. In other words, we've strengthened the desire in many others to extort money in the same way without regard for anything else. And perestroika, for which the organizers of the strike proclaimed their support, gets another backheel.

Let every worker weigh all of this and answer honestly: have we won or lost?

#### **Monitoring of Co-op Safety Standards Needed** *18280112 Moscow TRUD in Russian 11 Apr 89 p 2*

[Article by V. Kovalev, manager, department of labor protection, Rostov Oblast council of trade unions: "Your Ruble or Your Health?"]

[Text] The chairman of the "Vitrazh" cooperative, A. Shterngold, came to our department recently and I talked with him for about an hour. It would seem, what kind of connection is there between the cooperative and the oblast council of trade unions' department of labor protection? It turns out, a most direct one. Aleksandr Aleksandrovich turned out to have a whole load of questions precisely about the problem of the social defense of the members of cooperatives, and those working in them under sub-contractor conditions. So, for some of them, the main thing is to earn money quickly, even to the detriment of their own health. Disregard for labor safety turns into diseases and mutilations. TRUD has already written about this. We have even had accidents with fatal outcomes.

...In the second half of November of last year, the "Granit" cooperative executed work of repairing and painting the roof of a residential building in Rostov-na-Donu. Sub-contractor G. Glushchenko also took part in the work. It later proved that the worker had none of the basic skills needed for such work. No one taught him, no one instructed him. They say, it is not a state enterprise. As Glushchenko climbed up to the roof to help his partner, he stepped on a freshly painted spot, slipped, fell to the ground and crashed.



As I said, this happened in the second half of November, and we learned about this tragedy only at the end of December. There is nothing to be surprised about here: inventory of accidents in cooperatives is not stipulated in any way, and is not conducted. And who knows how many occur in the oblast, the republic, the country?

The family of the dead man began to demand compensation for their loss—only then did the labor equipment inspection of the trade union find out about the accident. We, of course, conducted an investigation, and determined which regulations of equipment safety had been violated. There were so many violations that their enumeration took up an entire page. But our investigation itself carried no judicial force. Anyone could have calmly declared, "And strictly speaking, on what basis are you doing this?"

And that is just about what they say to us. V. Vinnikov, equipment inspector for the workers of the automotive and agricultural machine building trade union CC, came to Zernograd for the planned review of the repair-construction administration of the "Rostovremstroy-montazh" trust. He entered the woodworking shop and froze. A curtain of thick sawdust hung in the air (as it turned out, the ventilation was inoperative), and people labored in this cloud. Moreover, the work places, walkways and passages were blocked with panels and obstructions, littered with scraps and shavings. Later, it proved that there was another problem: the workbenches and electrical equipment—saw frames, circular and swing saws, the surface marking and milling benches, the powerful electric treatment cabinets were being used with gross violations of the regulations of equipment safety, they did not have the necessary protective plates, barriers or blocking devices. In general, a complete disgrace!

The equipment inspector tried to sort out the situation. But in a businesslike manner, it was explained to him that the Law on Cooperatives, so they said, stipulates complete independence. There was nothing for the inspector to do but to summon the chief of the administration (fortunately, he was on the scene) and in his presence, turn off the main switch of the power supply, and issue an order for the elimination of gross violations of the regulations of equipment safety.

Well, sure, this is a state enterprise at which cooperative members work, and here, justice will ultimately find the violators. But if the cooperative leased a section or shop, if it is not at all the full owner of its production? The regulations of labor protection and equipment safety are not applicable here? And here they may go ahead and cripple people?

True, the Law on Cooperatives states that the cooperatives implement measures to ensure the protection of labor and equipment safety, and production hygiene and sanitation in accordance with requirements in effect. The cooperative members we note (not a word about

those working as sub-contractors) are liable for social insurance and social security. But this is as desired by the cooperative, by its board! In the examples of the Zernograd repair and construction administration and the Rostov cooperative "Granit," we have already seen what this vagueness leads to. No, these points in the Law on cooperatives must be strengthened, the responsibilities of the cooperative for the protection of the labor force working in them, their social insurance and social security, must be directly declared. The cooperatives are a part of our socialist society, of the socialist economy, and the law concerned with the preservation of people's life and health, with the improvement of their labor conditions must be unalterable for them.

The most far-sighted cooperative workers understand this and want to have more precise elucidation and recommendations on the essence of this problem. Of course we are not speaking of the creation of a new network of instructions and resolutions, which would entangle the cooperatives like a spider web, binding them hand and foot, depriving them of their independence and opportunity to display initiative and entrepreneurship, as guaranteed by law. But the basic issues of principle, the provision of health protection of workers in cooperatives and their compensation for harm in the event of an accident, must be straightforwardly resolved.

Who in the cooperative, and to what extent, must bear the responsibility for the creation of safe and healthy labor conditions? Who is obligated to implement and control the observance of the norms and rules of labor protection, to inventory and investigate accidents? Who, and in what amounts, must pay compensation to the family of a worker who dies accidentally, or loses his work capacity, both today and when the cooperative suddenly ceases to exist?

The answers to some of these questions can be found in the Law on Cooperatives, but managing by that document is almost impossible. For example, it stipulates deductions from cooperatives' profits to the state fund for social insurance in an amount and through the procedures established by the USSR Council of Ministers. However, only part of the cooperatives (here in Rostov Oblast, about 20 percent) implement social insurance for workers. Another problem arises: what amount of deductions? In its resolution, the USSR Council of Ministers coordinated them with the deductions established for this or that branch of the national economy. For example, the rate of contributions required from the autotransportation sector for state social security is 5.5 percent of income, and for trade, 7 percent and so on. But the snag is that cooperatives are, as a rule, highly diversified enterprises. To maintain a multi-paged "spread sheet" with designations for all work, night and day? That would get anyone completely muddled up!

It seems that in order to regulate deductions, an average percentage should be established: one for industrial cooperatives, another for non-industrial cooperatives.

And it would be justified to place these sums in direct dependence upon conditions of labor, its continuity and intensity. The formula is simple: the worse the conditions, the higher the payment. Then there will be a healthy stimulus in the cooperatives for providing safe and healthy labor.

And one other problem. It has already been noted that up to this time, it has been unclear who must control the cooperatives' observance of the regulations of labor protection: the trade unions are not in charge here yet.

But if the scale tips in their favor, and it seems that it will, then the question of staff arises. The cooperatives, after all, are a cumbersome lot; in Rostov alone, over 16,000 people work in them. In the meantime, since the famous reductions, the numbers of trade union labor equipment inspection has decreased.

...The department telephone rang as I was finishing this article. The call was from a labor equipment inspector of construction workers. "There has been a bad accident at one of the cooperatives. What should we do?"

## PRODUCTION

**New Pipe-Cutting Tool Cannot Find Manufacturer**  
18230048 Moscow *SOTSIALISTICHESKAYA*  
*INDUSTRIYA* in Russian 17 May 89 p 2

[Article by V. Bondarenko, designer, Gomel Machine-Tool Building PO [Production Association] imeni Kirov: "From Exhibition to Exhibition: Soviet Machine Tool Makes the Rounds, But Imported Items Are Purchased for Industrial Needs"]

[Text] An old dream of mine has finally come true: in Moscow at the VDNKh [Exhibition of USSR National Economic Achievements] an exhibit of unused inventions has been opened. Each exhibit is well mounted and furnished with a list of the places to which its inventors applied with requests for their introduction of their innovation. One gets an impression of a chart of the Brownian Movement of hapless letters and replies full of vacuous phrases. I can also propose a presently active exhibit for the new exhibition.

Many years ago three inventors at the Sarkana zvayzgne Motor Plant in Riga created an extremely successful design for a pipe-cutting semi-automatic unit. There was nothing like it within the entire spectrum of our country's pipe-cutting machine tools.

At first the pipe-cutters inventors, the engineers I. Asnin, A. Sprudzh, and the fitter L. Klauzh, believed that the fate of their machine tool would be just as simple as its design. They believed this because they saw that the advantages of the innovation lay not only in its simplicity, but also in its small dimensions and in the large range of the pipes which it could cut, as well as in its unbelievable productivity. Also of importance was the fact that the machine tool was waste-free.

According to the logic of the Ministry of the Machine-Tool and Tool-Building Industry, the ENIMS [Experimental Scientific Research Institute of Metal-Cutting Tools] should have grabbed this innovation with both hands; it had been tested, shown, and received good reports worthy of any discovery. The Riga pipe-cutter was also well known at the OKBMS [Experimental Design Bureau for Machine Tools], which specializes in planning precisely this kind of equipment. Alas, nobody grabbed it. Departmental ambitions and professional envy did not allow them to condescend to cooperate with "dilettantes." As a result, our country's machine-tool building to this very day lacks a highly efficient, inexpensive machine tool for processing small-diameter pipes. And, meanwhile, at the motor plant there was a pile-up of people on business trips. They were all interested in just one thing: how to acquire this semi-automatic unit.

The plant's directors quickly grasped the meaning of this: they had a "golden goose" in their hands. From this time on, at the Sarkana zvayzge, under the guise of

technical aid and "mutual interests" semi-cottage type methods were used to assemble and distribute this firm's semi-automatic units to various cities and villages. They succeeded to a certain extent: over a period of 18 years they constructed about 70 of these machine tools. And they saved the plant from many deficits.

It's clear what the motor plant received thanks to the pipe-cutter. But what about the inventors? In a material sense—a pittance. However, there has been enough fame and glory for everyone concerned. They have been talked about in the republic-level and central mass media. The names of Asnin, Spruzhd, and Klauzh have even been included in the Encyclopedia of the LiSSR! But nobody has undertaken to put their machine tool into serial production.

In Stankoimport they consider that the machine tool is needed. Furthermore, similar equipment is being purchased abroad for the Ministry of Ferrous Metallurgy.

Is it not, in truth, a picture which is all-too-well-known? Instead of producing an item in our own country and selling it abroad for hard currency, we ourselves buy analogous items abroad with our gold. It's an obvious piece of stupid bungling! And there would seem to be nobody to blame. But why not? What about the machine-tool builders who "steadfastly" refused to take note of this machine tool? And what about the USSR VDNKh? In 1974 the Riga semi-automatic unit was demonstrated here, and its inventors were awarded bronze medals. In 1982 it was exhibited again, and this time as an "up-to-date engineering piece of equipment used in the motor-vehicle industry." As a result, it won gold, silver, and bronze medals! It was planned to demonstrate it at the following exhibits: Avtoprom-84 and then Izobretatel-88. The pipe-cutter was here and there! Not a machine tool but a kind of children's game.

There is something unseemly and demeaning in this lack of discrimination on the part of our country's main exhibition. In point of fact, the trusting visitor has seen the same model from 1973 on four occasions, and each time under the banner of the technical achievement of the present day. For a decade and a half the VDNKh has exploited the intellect of the inventors but has refused to aid them in introducing their innovation as soon as possible! It has refused, even though it has the intersectorial exhibition-introductory center entitled "Izobretatel."

Two or three machine tools a year are produced by the motor plant. But the actual need for them is more than 10,000. In due course the ENIMS has completely defeated the design of this semi-automatic unit. The conclusion is somehow realized in all interested organizations. Wherever the Rigans have turned for help, they have always been referred to the opinions of the scientists. As submitted by the main institute and the technical administration of the Ministry of the Machine Tool and Tool Building Industry, the State Committee on

Inventions was informed as follows: "We agree with the conclusion of the ENIMS and the confirmation of its conclusions concerning the lack of feasibility for the industrial use of this pipe-cutting machine tool." Then why, it may be asked, were its inventors awarded gold and other medals by the VDNKh?

But, as the saying goes, the ways of the Lord are mysterious: after several years, the specialists at the ENIMS have suddenly decided to become co-inventors of this invention. And there is even more. They have also recommended that our association organize...serial production of this machine tool "which was going nowhere." Unfortunately, for a number of reasons, this machine tool has not gone into serial production. The Ministry of the Machine Tool and Tool Building Industry has recommended another products list for the association. The Riga "marvel" has again been put on the shelf.

I can predict the subsequent fate of this machine tool. After the present item is published, a sternly threatening order from the minister will appear, mentioning "extreme" punishments. In connection with the fact that the plans for the enterprises have been wrapped up already, nobody will concern themselves with the pipe-cutter during the present year. At best, work will be postponed until the end of next year. By that time the OKBMS will have finished designing a pipe-cutting semi-automatic unit analogous to the Riga one. Except that the analogue will turn out to be three times as expensive, complicated, and heavy. The Muscovites have already been assigned the task of planning it. The problem of circulating the Rigans' machine tool will disappear of its own accord.

### TECHNOLOGY ACQUISITION, ASSIMILATION, COOOERATION

**Machinebuilding Specialist on USSR-FRG Trade**  
18230054 Moscow SOTSIALISTICHESKAYA  
INDUSTRIYA in Russian 13 Jun 89 p 3

[Article by Raymund Khert (Raymond Hert), manager of the International Department of the Union of West German Machinebuilders: "In the Role of Pioneers"]

[Text] After a 3-year decline in the export of machinebuilding output to the USSR, enterprises in the FRG were able to turn this process around in 1988: the volume of deliveries exceeded 2 billion marks in 1988. Thus the Soviet Union assumed 11th place among the FRG's most important world customers in this sector. In 1987 the USSR held 13th place after the PRC, though the latter has passed ahead of the USSR now as well.

The FRG holds first place among Western states in deliveries to the Soviet Union of machine tools, metallurgical and rolling equipment, test stands, woodworking machines, precision tools, motors, motor vehicles,

pumps, equipment to turn out building materials, rubber products and plastics, mining machinery, deep drilling rigs, machines for the food and textile industry, and so forth.

None of the industrially developed countries and none of the Soviet Union's CEMA partners have as many companies in the Soviet market as the FRG. There are 1,400 to 1,500 machinebuilding firms alone. They know the Soviet consumer much better than their competitors and have long-standing traditions, authority, and good service.

Because of the major Soviet projects to build steel mills and petrochemical complexes and for laying pipelines, the firms that specialize in delivering the appropriate equipment are playing the role of pioneers by laying the groundwork in the USSR for small and medium-sized companies.

This year, in the experts' opinion, shipments to the USSR may increase to 4 billion marks. This prediction is supported by Soviet plans for technical renovation of the metal-working, food, textile, leather and shoe, and light industries. In the leather industry, for example, the Soviet Government intends to modernize—and West German firms have already received their first orders—80 shoe factories altogether and to build several new enterprises with the help of "Salamander," the leading manufacturer in this field in the FRG, including in the form of an SP [joint venture].

A credit of 3 billion for our Soviet partners from a consortium of banks headed by the Deutsche Bank also provides a basis for optimism. This huge amount of credit is directly linked to West German deliveries. Some contracts have already been concluded. For example, 300 million marks for the delivery of equipment for making pastries and bakery products, dry cleaning machinery (1,000 units annually), and construction of a plant to turn out processed cheese and a furniture enterprise.

The program of investments announced by the USSR Gosplan at the end of 1988 to develop mining in the Asian part of the country has aroused considerable interest among West German mining equipment manufacturers. Soviet official organs have made it clear that mining the raw material here is desirable with the help of Western technologies and equipment.

The plans to modernize the mining industry on the Kola Peninsula are being viewed in the FRG with the same hope. Some 25 projects are being discussed with Western countries; some of them will be carried out with the support of consortiums, including the establishment of joint ventures.

Our machinebuilding holds a prominent place in the deliveries of equipment to the USSR. In 1987 it was responsible for more than half (51 percent) of all Soviet purchases of this output in the West. The prospects for 1989 and 1990 are good as well.

This assessment is based on several factors. The main one is the expansion of motor vehicle production in the USSR. At the end of 1988 the volume of Soviet orders totaled about 500 million marks. If transactions are completed with the Daimler-Benz and Volkswagen concerns, deliveries will increase even further. In the 1970's, the motor vehicle plants in Tolyatti and Kama were supplied to a significant degree with machine tools from the FRG. The time has now come to modernize them quickly. Negotiations are now being conducted successfully with the (Libherr) group to build a plant to manufacture engines for the AZLK [vehicle produced by the Moscow Motor Vehicle Plant imeni Leninskiy Komso-mol] in Moscow.

Business for the suppliers of special tools is also developing well. This sector has long-standing ties with the Soviet market and holds leading positions in it. In 1987 the USSR's imports of this output from industrially developed countries reached 124 million marks. The FRG's share amounted to 80.4 million.

West German machinebuilding's strong position in the Soviet market is based on excellent marketing and participation in numerous specialized exhibitions. Not one country has been represented in the USSR in this sector by as many firms as the FRG. It has taken part in a considerable number of licensing and cooperative contracts.

Companies in the FRG are playing an important role in cooperative ties as the suppliers of licenses and "know-how." In 1988 they became the leaders in the number of joint ventures established in the USSR. This position may become stronger in the course of M. S. Gorbachev's visit to the Federal Republic.

## **AUTOMATION, AUTOMATED SYSTEMS**

**Ulyanovsk Center for Microelectronics,  
Automation Research Set Up**  
*18230042 Moscow SOVETSKAYA ROSSIYA  
in Russian 19 Apr 89 p 2*

[Article by special correspondent A. Solarev: "Tripping over Blueprints; Why the Construction of the Ulyanovsk Microelectronics Center Progresses Unevenly"]

[Text] It is no secret that when our machines are sold abroad firms that market them often remove their electronic innards and replace them with their own components. Once this is done, the machines become considerably more expensive. And some products, due to the poor quality of their electronics, can not be sold abroad

at all. Most defects of our machine building are directly linked to the backwardness of domestic microprocessor technology. This is why nearly 2 years ago a decision was made to set up a research and production association "Center for Microelectronics and Automation in Machine Building" in Ulyanovsk.

The center, to be completed in 1997, will be comprised of five major research complexes. Each complex in turn will have a research institute and an experimental production plant. The first complex, which will make integrated circuits, should be finished next year and start producing these items, which are in very short supply, for machine-building complexes. Other departments of the center will work on miniaturizing control equipment and developing so-called on-board electronics which will gather, process and memorize all data and issue commands to the working parts of a machine or a system.

"We are planning joint enterprises with foreign companies," said the center's director general A. Ryzhevskiy, Ph.D. in technical sciences. "An affiliate of the joint Soviet-American 'Dialogue' project for computer development is already in operation. We have also reached agreements with a number of firms in France, Finland and the FRG. We intend to establish contacts with Japan and South Korea, who are very advanced in microelectronics. In addition, an arrangement is being considered whereby the center will be administered by the USSR Academy of Sciences. Institutes of the Academy will have an opportunity to quickly put their theories into in practice while we will stay abreast of science."

The Ulyanovsk Center's uniqueness and heavy dependence of research create stringent requirements for its current and future employees. It will need more than 100 Ph.D.'s and almost 900 candidates of science. There are no such specialists in the city, which is why the center is inviting scientists, especially physicists specializing in solid matter and experts in semiconductors and applied mathematics, from all over the country. Specialists are also being trained locally. The country's best higher education institutions and research institutes are training specialists, and the center is sending students to study at their graduate programs. It already has its own specialists, as well. Next year, the first stage of the interindustry center will come into operation; it will prepare both researchers and engineering and technical specialists. The center also has an affiliated school, where scientists teach computer courses and other classes.

And what about the center's relations with the city, considering that the former will bring tens of thousands of new employees and the latter already has long waiting lists for housing and a completely inadequate social infrastructure? Would the center not exacerbate existing problems and create new ones? Over R400 million has been budgeted for new housing and infrastructure. A new residential district is planned; it is up to highest modern city building standards.

It is curious that in the beginning, local residents were opposed to so large an industrial complex in their city. In response, the center's environmental impact study was reviewed. The results were very surprising. It turned out that the center would not harm the city; on the contrary, the city would not be good for the center. The level of air pollution, underground electricity from tram lines and the noise of airplanes taking off would hamper the production of super-pure materials at the original site. The project had to be redesigned and the center moved more than 30 kilometers outside the city.

What is the current status of the center's construction? The general contractor, the "Ulyanovskstroy" regional construction association, fulfilled last year's construction and installation plan 121 percent. This figure means two engineering lab buildings and a cafeteria ready for finishers, apartment buildings where thousands of local residents and center employees have already moved, work in progress on Stage Zero of the interindustry training center and 10 kilometers of water mains laid for the future production site. Specially for the center, "Ulyanovskstroy" has set up a powerful trust with its own construction resources, machinery, special equipment and highly trained workers. This year, the volume of construction and installation work alone will rise nearly fivefold, to over R50 million, since next year a number of units will have to start operation. The results of the first 3 months indicate that builders are on schedule for the time being.

"But only for the time being," stressed "Ulyanovskstroy" director N. Vikhlevshchuk. "We are constantly held back by planners from the 'Promstroyproekt' urban construction engineering institute. Of course, their work is difficult. The decision to build the center was made in May 1987, and the site for it was chosen in the summer. The technical-economic proposal and project specs had to be prepared almost simultaneously. Still, their work is inaccurate. Project specs arrive incomplete. Even for projects that are ready to start operation, we often lack full documentation. Last year, the planners did not fulfill their promise to provide documentation for R100 million worth of construction and installation work, even though they did fulfill the plan as far as total output is concerned. But I repeat, the problem is that documentation is incomplete, and as a result we are virtually paralyzed. This deficiency leads to a poor material and technical supply situation at the construction project, since we are unable to place our orders with the state supply agency on time. This year, for instance, we will be short by 8,500 tons of steel, to say nothing of equipment.

The supply agency is not very prompt, either. When construction and design are being done out simultaneously, the system should be as follows: today we get the specs, tomorrow we order what we need and a month later, at most, we get what we have ordered."

Indeed, the situation at the construction site, despite all the good numbers in the reports, is far not only from ideal but from normal as well. The planners are concerned with overall output figures, which means that the builders must not only do what needs to be done but also chase after output quotas, often at sites that are not as urgent.

But this apparently does not bother the planners—even though they get double pay for preparing documentation for the microelectronics center. For instance, they are yet to carry out the order of the USSR state construction agency's deputy chairman A. Chernyshev to set up a joint department for on-site project design in Ulyanovsk. It has been issued a year and a half ago, but there has been no progress yet, even though the contractor and the client both feel that bringing the planners closer to the construction site would solve great many problems.

How to characterize this activity, or rather inactivity, of "Promstroyproekt"? Apparently, in the same vein as the inactivity of high officials at the USSR state supply agency. As far back as June of last year, the USSR Council of Ministers' deputy chairmen Yu. Batalin and I. Silayev ordered a group of central organizations "to consider, starting in 1988, issues related to the task of supplying the Ulyanovsk Microelectronics Center's construction sites with materials and equipment (their construction is being conducted simultaneously with design), with the aim of developing a system of accepting requests for material resources and equipment as soon as specs arrive, and of ensuring timely delivery to provide for technological continuity of construction and installation work." The first quarter of 1989 is over, but no such system has been developed. Its lack may not only result in completion deadlines for units of the future center to be missed, but jeopardize the entire project as well.

Why is it that many months after these orders, so important for the fate of the construction project, have been issued, the contractor and the client still face the same problems? Why have they not been resolved? The main reason apparently is that this extremely important technological research center, meant to help overcome our long-standing lag in electronics, is yet to become a priority for our central organizations.

## RAIL SYSTEMS

### Quarterly Rail Performance Noted

18290151a Moscow GUDOK in Russian 1 Apr 89 p 1

[Report from Ministry of Railways Statistics Administration: "The Quarterly Plan Has Been Fulfilled Ahead of Schedule"]

[Text] Railroad workers fulfilled the quarterly plan for transport volume ahead of schedule on 29 March. About 25 million tons of products of the national economy were shipped in the remaining 2 days, and the total volume of shipments transported exceeded 1 billion tons. The state order, which makes up 62.7 percent of the total shipment volume, was overfulfilled by 16 million tons, including about 4.5 million tons of hard coal and 1.4 million tons of oil and petroleum products.

It should be noted at the same time that the total volume of freight shipped in accordance with the full range of products under the state order, except for cement and paper, is somewhat lower than the same period last year; the plan for shipment of mineral fertilizers was underfulfilled by 1.4 million tons.

The pace of shipments planned locally has been stepped up; the volume of these shipments exceeded the plan by 9 million tons and the level for last year by 2.5 percent. The overall plan for freight transport was met by 25 of the railroads. The largest contributions were made by the Dnepr, Donetsk, Moscow, Belorussian, Odessa, and Sverdlovsk Railroads. The Tselina, Kemerovo, Volga, West Kazakhstan, and Central Asian Railroads finished the quarter lagging behind.

Fulfillment of the state order for passenger turnover is being provided for in the system as a whole. The labor productivity of workers engaged in transport increased by 1.2 percent, the production cost of transport remained at the level of the first quarter last year, and above-plan profit totaled about 35 million rubles.

### Ginko, Aganbegyan Address Meeting on BAM

18290151b Moscow GUDOK in Russian 4 Apr 89 p 1

[Report by P. Yuryev on statements made to meeting of the USSR Academy of Sciences Transport Commission by First Deputy Minister of Railways V. N. Ginko and Academician A. G. Aganbegyan: "The BAM [Baykal-Amur Mainline]"]

[Text] A meeting of the USSR Academy of Sciences Transport Commission devoted to problems of the Baykal-Amur Mainline was held in Moscow recently.

The main report to the scientists present was delivered by First Deputy Minister V. N. Ginko. He reported that by 1 January 1990 the BAM construction workers will assimilate 7.9 billion rubles of the total cost of 9.5 billion

rubles. It is clear from this that construction of the mainline is far from being completed. Complete and final commissioning is scheduled for 1994-1995.

Within the framework of the consolidation of railroads being carried out by the MPS [Ministry of Railways] to reduce the number of management personnel, and this is 9.5 percent of the employees, they were planning to divide the BAM among the other railroads. Incidentally, 10.5 percent of BAM personnel are in management, and in the words of V. N. Ginko, this is staffing that is inflated considerably for the existing volume of work. It has been decided to leave the Baykal-Amur Mainline independent.

This line is now operating at a loss for the ministry; the production cost for 10 ton-kilometers on it amounts to 20 kopecks at a time when it is 5 kopecks on the Far Eastern Railroad. However, a number of measures have been outlined to enable the BAM to become profitable by 1991.

Stressing again that construction of the mainline has not been completed, the first deputy minister directed his audience's attention to the following. It turns out that financing of the project was not only cut back by the Gosplan, but in the following five-year plan it was shifted entirely to the shoulders of the Ministry of Railways. That is, the solution of a state task was shifted to a department. If the matter continues in precisely this way, we will never finish building the BAM, in V. N. Ginko's opinion.

In his address, Academician A. G. Aganbegyan called the BAM a great project. He expressed confidence that when the froth and dust raised around it settle, the people will be proud of the new mainline, one of their great achievements.

The BAM was a strategic decision. Half the country cannot be supported on one thin thread of a railroad along the border.

The project has many problems. From the very beginning, for example, we have counted on imported equipment, which made the mainline roughly a billion rubles more expensive. We bought up ("Magirus") at a cost of 49,000 foreign exchange rubles, but we did not invest a kopeck in the KrAZy [vehicles made by the Kremenchug Motor Vehicle Plant], which we could have purchased more cheaply, as well as with normal rubles.

In A. G. Aganbegyan's opinion, the basic scientific problems on the BAM have been resolved. The Far Eastern Department of the USSR Academy of Sciences should concern itself with the remaining ones in real earnest. All the problems are much more apparent to them.

The representatives of both departments and the scientists did not omit reproaches directed at journalists. Accusations of incompetence and other mortal sins were heard again. It turns out that it was precisely the press, which raised all the hue and cry around the BAM, in the unforgettable memory of the 1970's, that is to blame for all the problems. A convenient position...

The BAM exists. The BAM is already in operation. True, it is far from operating at full capacity, but construction has not been completed yet. And everyone involved in its construction is interested in seeing that the project is completed more expeditiously and that the railroad ceases operating at a loss.

### **Railcar Repair Plant Problems Examined**

*18290151c Moscow GUDOK in Russian 2 Apr 89 p 1*

[Statements by L. Ivanov, manager of the Moscow Order of Labor Red Banner Railroad Car Repair Plant imeni Voytovich, reported by S. Maslyuk: "The Strengths Were Found After All"]

[Text] Moscow—The collective of the Moscow Order of Labor Red Banner Railroad Car Repair Plant imeni Voytovich was faced with a most difficult dilemma a year and a half to 2 years ago: to be or not to be? One of the oldest enterprises in the sector and the capital, it turned out, had exhausted all its reserves and was continuing to survive only by inertia. Many simply did not believe that the strengths would be found to help the plant come out of the slump. The skeptics proved to be wrong, all the same. These strengths were found, and today the enterprise is recognized as one of the best in the sector. It was awarded the Challenge Red Banner of the Ministry of Railways and the Railroad Transport and Transport Construction Employees Trade Union Central Committee for successes in All-Union socialist competition shown by results from the fourth quarter of 1988. L. Ivanov, the plant's manager, tells about the paths to this labor triumph and the problems of today.

To say that it was difficult for us is not to say anything. It was a period when the people had really lost confidence in their own strength. For a long time we had to look persistently for a way to get it back again. Now we have definitely found it.

Extensive reconstruction is under way at the plant. We are changing everything, from the old buildings that have worn out to the equipment and the attitude of the people. The task before us is most complicated, of course, for under these conditions we are not only continuing to rebuild the enterprise, but to turn out the full amount of finished products as well. We have enough problems. One of them relates to the inadequate

capacities of our contractor—the "Tsentrtransstroy" Trust of the USSR Ministry of Transport Construction. Because they are limited, the field of operations is much narrower than it could be. Accordingly, this also leaves its stamp on the times for putting projects into operation. We bear no grudge against the construction workers. We have a good relationship with them. We resolve most of the problems either at the level of joint planning meetings and conferences or during meetings between representatives of main administrations.

But, I repeat, a great deal will depend on whether our contracting organization will be able to increase its capacities. This is an open question at present. But perhaps something will be cleared up after the meeting between our ministers. Especially as there is such an arrangement, and the plant's collective is anxiously awaiting this meeting.

Another problem, I would say, of such a general nature, is related to material and technical supply. Because of irregular deliveries of plastic, lumber, rolled metal, and other materials needed for our production, we have to operate under difficult conditions anyway.

Finally, the personnel problem. The shortage of workers in key occupations is still having an effect in certain shops. We will try to resolve this problem through our vocational and technical school.

We recently reinforced the middle management component considerably, and now we must deal with the worker personnel problem. Evidently we have to work more with the young people and we should not be afraid to entrust them with the most important sections.

All the same, I am an optimist and I believe that once the collective has found its strengths to overcome the crisis, it can accomplish a great deal. We have extensive and long-range plans. This year we are getting ready to open two bays (92 by 24 meters) for the new railway car assembly shop. When it is at full capacity it will enable us to repair on the order of 125 additional cars per year.

To the extent that we complete reconstruction of the basic production areas, we will begin building the projects for social and everyday purposes—a new club, a dining room, and a sports complex with a pool.

### **Chemicals Storage, Transport Problems Noted**

*18290154a Moscow GUDOK in Russian 11 Apr 89 p 2*

[Report from Odessa by GUDOK correspondent M. Gorbis: "And We Are Trampling On the Gold: Mineral Fertilizers and Toxic Chemicals Are Deteriorating at Stations and on Sidings"]



[Text]

### A Sad Still Life

**"We cannot manage without chemicals today, of course. But we must absolutely raise our standards and increase responsibility in using chemicals in production, in transporting and storing them, and especially in placing them in the soil." (From the report by M. S. Gorbachev at the March 1989 Plenum of the CPSU Central Committee)**

The diesel switcher put the railroad car with fertilizers on the fourth track of the Vygoda station. Since the Belyayevskiy Rayon Agricultural Chemicals Association, where they had had been sent, had no warehouse at the tracks, they began unloading them directly on the ground, where superphosphate, potassium, phosphate fertilizer, and carbamide had been dumped in a mixed up fashion a long time ago—in a word, a whole mixture of the "vitamins of the fields" which had already lost their valuable properties.

This still life of scandalous mismanagement had been put out at the Vygoda station many years ago, as if derisively. However, there are more than enough such examples on the Odessa line. And it probably would have been worthwhile for the railroad workers to display their character in such situations and to demand that freight consignees provide some structure, if only a paved platform with a lightweight shed.

Alas, it did not come to that. Though as long ago as 1985 the oblast association allocated funds to the Belyayevskiy Rayon Agricultural Chemicals Association to build a warehouse beside the tracks at the Vygoda station. But while they were looking for a contractor, the project became outdated and they took the money away. The stationmaster wrote letters to the rayon's public prosecutor and the party rayon committee. The situation did not change.

In mid-March this year, there were over 300 tons of fertilizers here, and as much gypsum that had been brought here last winter. The rayon agricultural chemicals association paid the station 23,000 rubles in fines for this storage of its valuable resources.

But if the damage were calculated only by these thousands! The many years that a cemetery for chemicals had existed at the station led to a situation in which the drinking water turned out to be toxic. Analyses showed the presence of pesticides in artesian wells and wells.

A deputy's inquiry was held on this. They discussed it at a session of the Vygoda Rural Soviet, in which the rayon leaders took part. The rayon agricultural chemical association was ordered to remove all fertilizers from the station without delay and to begin construction of a warehouse to store them. While they are getting started they ought to use their authority to stop the delivery of chemicals.

### Buried Millions

**"There are 1.7 million tons of mineral fertilizers and toxic chemicals being stored outside of premises in the country today." (From a speech by USSR Minister of Health Ye. I. Chazov)**

Alas, what took place at the small station of Vygoda is not incidental. The scandalous mismanagement and irresponsibility are creating increasing concern among the people. Every year 600,000 tons of mineral fertilizers are delivered for the kolkhozes and sovkhozes in Odessa Oblast. Apatites are shipped from the Far North, from the Kola Peninsula, to the shores of the Black Sea, to Odessa; at a superphosphate plant they are used in the preparation of complex granulated mineral fertilizers. They are sent from here to consumers in mineral carriers.

"Very likely it has been stated loudly that we are shipping our product exclusively in mineral carriers," V. Kuzmin, the plant manager, noted. "Indeed, the specialized cars have been sent for 2 years now to replace the enclosed cars. However, we cannot make full use of them, since most of the stations do not have a trestle or elevated tracks to unload the mineral carriers. So there are 26 stations each in Odessa and Nikolayev Oblasts that receive fertilizers, but only six stations in the first oblast and only five in the second one can unload the mineral carriers; there is not one in Kherson Oblast! Moldavia is an exception."

As strange as it may seem, the mismanagement originates precisely where they receive the expensive fertilizers and dictate what to deliver them in. And we deliver most of them in bulk in enclosed cars. It has become a real problem to unload them, especially in the so-called general-use locations, where there are no warehouses along the tracks or even a simple paved platform. Not counting shovels, there aren't even the elementary unloading facilities. There is no weighing and accounting for what is received, and hundreds of kilograms of valuable mineral fertilizers often remain in the cars for that reason.

I decided to find out the condition in which the cars arrive at the preparation points after they are unloaded. Here are brief interviews.

#### I. Posol, shift chief at the Znamenska PPB [car preparation point]:

"More often than not we discover up to a ton of fertilizer, or even more, left in the cars. We have to throw it in a ditch, and then drain it off into cleaning installations. We have no other choice. They unload fertilizers this way at the Lelekovka station, as an example. A directive came in recently: if more than 200 kilograms of fertilizer turns out to be in a car, they say, make out a report on it. If we begin doing this, there will be no time to work."

**G. Babkin, stationmaster at Lelekovka:**

"But what can you do here if the single person we have to receive the cars, L. Botnar, barely has time to glance at the sidings for the Kompaneyevskiy and Kirovogradskiy Rayons' agricultural chemicals associations and at the warehouses for a number of oblast organizations and plants? We have no technical office, and for this reason she also has to keep a record of the cars and check the work of the freight yard."

They gave me this information in the Odessa Railroad's car service last year: last year approximately 1,300 tons of different mineral fertilizers were discovered in the cars at the Cherkassy, Pomoshnaya, and Znamenka washing centers. This is only what they managed to keep track of, but how much is left is off screen, as they say.

But now let us look at how we are storing them and using them right on the farms. The statistics show that up to 15 percent of the mineral fertilizers generally disappear right on the fields. It hurts to see how careless farms heel in piles of mineral fertilizers that have lost their value in a woodland belt. Probably few people realize that the United States pays up to 300 dollars per ton to apply them in a season. A ton costs us just 42 rubles.

Isn't this one of the reasons for such neglect?

Recently the Odessa party obkom looked into an article in the newspaper PRAVDA UKRAINY which said that nearly 15,000 tons of toxic chemicals are being dumped today where more than 500,000 tons of bulk fertilizer and over 100,000 tons of liquid fertilizers fell and are vanishing.

Apart from the tremendous shortage in the harvest, this leads to catastrophic pollution of the environment. M. Rotar, lecturer in the engineering geology and hydrology department of the Odessa State University, confirms that the presence of pesticides, nitrates and ammoniate has been revealed in the overwhelming number of tests of artesian water in all the major populated areas in the oblast. And in a number of places, in quantities which exceed the PDK [maximum permissible concentration] by two or even 20 times as much!

And isn't this really cause for alarm when they have discovered such toxins in the products of the Baltskiy Milk Plant, which specializes in milk for children?! It turned out that the cows were also drinking contaminated water.

There are 450 places in Odessa Oblast today for storing mineral fertilizers and toxic chemicals, including at railroad stations. According to reports from the sanitary and epidemiological service and the nature protection society, most of them are being operated with flagrant violations of health and water protection standards. The situation has reached the point that a demand from these organizations has forced the railroad's administration to

close the washing centers at the Davlet-Agach, Razdelnaya, Odessa-Peresyp, and Slobodka stations. Is it really tolerable that only four of the seven places where they wash the cars that have carried various kinds of chemicals have cleaning facilities?

**Is There a Way Out of the Impasse?**

**"And it is quite obvious: in order to accomplish the task that has been set of increasing mineral fertilizer deliveries in 1995 by 10 million tons, we must build at least twice as many warehouses." (From a speech by N. M. Olshanskiy, USSR minister of mineral fertilizer production)**

At one time fertilizers were delivered to the countryside through the Agricultural Equipment Association. In order to fundamentally improve this work, it was decided to specialize agricultural chemical service for kolkhozes and sovkhozes 10 years ago in republics, oblasts and rayons by organizing regional "Selkhozkhimiya" associations. A. Greul, deputy chairman of the Odessa Oblast association, complains to me that there has been no significant expansion of the base for receiving and storing fertilizers over these years. Only 87,000 tons can be received today at railside warehouses, but 133,000 tons for one-time storage have to be unloaded from the cars right on the ground. And they are not hurrying to take them away, since there are few warehouses on the kolkhozes and sovkhozes as well.

The question raises: should we then increase their production by spending tens of millions of rubles to build new chemical enterprises and renovate the existing ones? Isn't it more sensible to use part of the money to build modern, mechanized warehouses? In the last five-year plan, no more than one-quarter of the number needed were built in Odessa Oblast. It is no better now, either. In 3 years, four of the eight capacities that were planned have been commissioned: at the Ivanovka, Kremidovka, Lyubashevka and Veselyy Kut stations. But not one railside warehouse has been built in Cherkassy, Kherson and Nikolayev Oblasts.

The managers at different levels explain this with different reasons. But in Moldavia they are not explaining—they are building warehouses at the major stations and concrete platforms at the small ones. In recent years they have erected special warehouses for 39,500 tons of one-time storage and enclosed platforms for 6,600 tons. The construction worker collectives of the SMP-211 and SMP-526 [construction and installation trains] of the "Odesstransstroy" Trust helped to carry out this major program through their internal resources. And a railside warehouse for 7,000 tons of mineral fertilizer is now being erected at the Sholdaneshty station. New sidings for warehouses have been installed at a number of other stations. So the transport construction workers are helping the countryside not in words, but in deeds.

Why hasn't this example been imitated in other regions?

I recall that in the early 1980's the leaders of the Odessa Oblispolkom called for the organization of dispatch centers at the major stations, mobilizing vehicles for centralized transport of fertilizers to the kolkhozes and sovkhozes. Now all the rayon agricultural chemicals associations have shifted to centralized transport, and they were given 400 dump trucks for this purpose. But the matter ran into a problem in the absence of warehouse facilities on the farms. They are taking fertilizers directly to the fields in the summer and fall, and they are storing them at the stations, especially in the winter.

This truncated centralized transport also has led to a situation in which the rayon agricultural chemicals associations do not rush to unload the cars in "hard times." They pay fines instead of this. Last year more than 155,000 rubles were paid to the Odessa Railroad for the layovers of railroad cars containing fertilizers.

The problems of the countryside must be resolved right away by everyone together. And work will be found for every department in increasing agricultural production, in which mineral fertilizers play an important role.

#### **Moscow Railroad Performance Highlighted**

*18290154b Moscow GUDOK in Russian 12 Apr 89 p 1*

[Report by GUDOK correspondent I. Kokoulin: "All Things Being Equal"]

[Text] Last year the collective of the Moscow Railroad fulfilled its plan for shipment of enterprises' output, including all freight under the state order. It acquired 44 million rubles in above-plan profit. There is not one unprofitable enterprise on the capital's mainline.

Far from many collectives can boast about such successes. Labor productivity has been increased by 26 percent as much in just the past 3 years; compared with the last five-year plan it has quadrupled.

Why has there been such a leap ahead with all the shortcomings in supplying the line with materials for the track superstructure and rolling stock and with the exhausted reserves of capacity on segments of the intensive freight routes?

The main factor in the increase in indicators is the increased weight and length of freight, passenger, and local trains. Much has been written and told about this method, and the term "heavily-loaded traffic" somehow became familiar. Some railroads have regarded the innovation as an ordinary campaign; it came, they say, it was over, and everything rolled on the old track again.

But in the Moscow Railroad collective they did not lose interest over the years in searches for new ways and new opportunities. In an 8-year period the average weight of a freight train was increased by 334 tons, and up to 1,000 tons on freight-intensive routes. The number of cars in electric and long-distance trains was increased.

What has this produced? In the first place, they began carrying more freight and passengers with the same number of consists. But they reduced the number of trains themselves on certain routes. This made it possible to reduce staffing. The volume of shipments was increased (by 7.3 percent) with locomotive brigades of reduced size—1,900 persons less.

As a result, they have achieved a high degree of maneuverability on the mainline. It freely allows transit flows to come through and even accommodates the surrounding area, that is, trains that are not passing through on neighboring railroads. They are overfulfilling an important indicator such as transfer, although it has increased already by 2,000 cars over the past 3 years. The additional volume of work is providing above-plan profit.

That is the way everything is. But if the railroad had not "been stewing in its own juice" and reached a broad section of track with its own innovations, then... Here is an example: the Moscow workers decided to run trains no less than 71 cars in length or at the maximum weight. They invited their neighbors to support them in this undertaking, but they did not respond.

For this reason, 28,000 cars were uncoupled from transit trains at the Orekhovo-Zuyevo station and 21,000 were uncoupled at the Rybnoye station last year. The movement of freight on the Gorkiy and Kuybyshev Railroads is being delayed and it increases the expenses of the capital's mainline for unnecessary switching work.

Perhaps heavily loaded consists are speeding in the opposite direction? Not at all. Only 10 percent of the trains 71 cars in length are coming to the Moscow line from the Southeastern and Southwestern Railroads now; 20 percent are coming from the Kuybyshev and Northern Railroads, and any half, as they say, come from the Gorkiy Railroad.

The impression is created that its neighbors are not interested in high maneuverability, profit, and self-financing. They mention a shortage of track as their justification. But after all, the Moscow Railroad is not being pampered in this regard, either. In 3 years 171 kilometers of new rails have not been delivered and 1,420 kilometers lying on the railroad bed are overdue for repair. The plan for major repair of the track has not been fulfilled for the second year. And even under these conditions the Moscow workers are finding reserves to lengthen the track at stations needed to make up, dispatch and receive heavily loaded trains.

The question is asked: what is preventing their neighbors from doing the same thing? After all, the Moscow workers' initiative made its appearance 10 years ago. It is a long time. In this time, free range could have been given to heavily-loaded traffic over entire routes. But only now, and at the ministry's insistence, are things moving and something is being done to receive and permit passage to long and heavy trains.

The same incomprehensible stubbornness applies to passenger transportation as well. One thing is clear—there is no place that additional fast trains can be allowed through. The Moscow workers are suggesting that the length of consists be increased by a factor of 1.5 and that they shift to a 24-car train.

True, there are not enough cars and the situation is unlikely to change quickly. However, it is in this very situation that it is advantageous to make up 24-car trains—with the same flow, the number of consists for passenger transportation can be reduced. But after all, each passenger train removes two freight trains from the schedule, which is of no small importance with the limited capacity on sections of track.

Obviously, the entire matter concerns initiative and the desire to find a way out of a difficult situation. And indifference and inertia are often screened only by searches for "objective" reasons.

#### **Ministry's Advanced Learning Institute, Problems Examined**

*18290154c Moscow GUDOK in Russian 12 Apr 89 p 2*

[Report by GUDOK correspondent A. Balashov: "Getting to the Very Essence in Everything"]

[Text] The sensitive robot arm took the unfinished work pieces in a precisely adjusted movement from the feeder and mounted them on the lathe. Without commotion and haste, but then, without smoking breaks and mistakes. And although this is only a "toy," a training model, it makes an impression, because the reserves for increasing labor productivity and processing accuracy are apparent to the naked eye, as they say.

"At present the robot is almost a miracle for transport plants," says B. Burlakov, head of the robotics laboratory of the All-Union Institute for Improving the Skills of Supervisors and Specialists in Railroad Transport (VIPK MPS). "But our objective is to demonstrate the potentialities of the new equipment, to overcome the inertia in consciousness, as it is now fashionable to say. In general, watch and apply it, and we are prepared to train the maintenance personnel."

But the institute is not only lively with robots today. There is also a computer class here, and the most up-to-date training programs which help the VIPK MPS students to discover the secrets of cost accounting and contract forms of organizing labor...

I don't know why, but until I became familiar with the institute it seemed like a rather boring institution to which experienced commanders come from all parts of the country, not for the sake of learning, but for the sake of the "points" needed to move up the official ladder. It

is possible that it was that way a few years ago, when tedious, unnecessary lectures were imposed on them and the formal luster of the proceedings was given much higher practical value.

But it is not boring today. The training process has become more flexible and democratic. Now each student can refuse the subjects that are unnecessary in his view by suggesting what he would like to learn about instead. After all, persons come here to learn how to resolve the problems which arise on the railroads, for example, in the transition to the new methods of economic operation. And who, if not they, knows what has become a stumbling block.

Of course, the institute cannot provide an individual program for each person at present, but it is quite practical for groups. And although extra trouble is created, since at times they have to quickly try to find instructors and specialists who can provide the lectures needed by the students, the institute's collective undertakes this all the same. After all, its material well-being under cost accounting conditions depends on the quality of the training programs. They understand very well here that there is no reason for the railroads to throw money into the wind. And if they pay for training personnel, they want to receive a real return from this. And the fact that the railroads today are gladly concluding contracts with the VIPK MPS convincingly proves that training is not being provided in vain for commanders and specialists at the institute.

"A new subject—cost accounting—made its appearance in the curriculum in 1986," states A. Alferov, director of the institute. "At that time this was somewhat reminiscent of the campaign to abolish illiteracy, of course: accelerated training of just 16 hours. Now we are trying to get to the essence itself. We have created specialized groups and we have started to conduct more practical lessons. And their own experience helps as well. This year the institute shifted to the second model of cost accounting, so we do not know it by hearsay," Aleksey Konstantinovich smiles.

"We are looking for new ways to test knowledge," he continues. "We are using computers more and more for this. And not only after instruction, but before it as well. After all, it is very important to know the store of knowledge that a person brings here with him. And the 'robotrons' [presumably, electronic robots] are indifferent and objective."

Let us not overlook the good old method of checking knowledge—the final examinations. But while previously they were stored in the archives, they now are sent to a production facility. And to the enterprise where the student came from. Right away there are several pluses here. First of all, persons have begun regarding these studies more responsibly, and secondly, feedback has

been organized to a certain extent. We now know what happened with 30 to 40 percent of our students and we can evaluate the quality of instruction.

It has increased significantly, but it will still be a while before we can "rest on our laurels." After all, we must be oriented toward the most modern equipment and be a beacon for the entire sector, so to speak. But what is happening? Take the extent of technical equipment. We should not complain, however; others have nothing. But all the same, there are obviously not enough computers and there are no specialized complexes for automated planning at all.

Another problem is that we are not in a position yet to train the number of specialists needed. We urgently need to develop a network of educational institutions. Such a program exists, but taking the ministry's opportunities into account, it will most likely be drawn out for many years before it is realized.

And our main institute has three regional branches at present—in Alma-Ata, Chita and Rostov-on-Don—and seven courses to increase skills. The departments in railroad VUZes are still operating. We could train more people even now, but we have a critical shortage of dormitory facilities. In Moscow, for example, we can accommodate only 240 persons at one time, but we could train twice as many.

Problems, problems. The establishment of a developed network of 20 branches and 150 skill improvement courses is estimated by specialists to cost 343 million rubles, but if we take into account the rise in wholesale prices for materials and increased wages, this figure becomes even larger. Nothing will come of acting on impulse here. But after all, there are things which can be resolved without particular difficulty, one would think.

A two-story private residence with broken windows is easily seen from the institute. This is not the first year that it has been vacant, but the Kirovskiy Rayon Ispolkom has refused to transfer it to the institute. But after all, it would not be delayed by repair. There are the means and the desire for this. But the institute is only suggesting.

It is suggesting, for example, that an entire complex be built in the vicinity of the Mosselmash [Moscow Agricultural Machine Building Plant] platform. There are instructions from the appropriate organs in this connection and designers had already undertaken the work, though they had to shelve it, since the contractor—the "Moselektrotyagstroy" Trust—suddenly turned down the project.

The institute has no luck with new construction projects, and it should be used to this now. It opened three branches, and they all were begun in adapted accommodations. And in Moscow we settled down not so long ago in this building—a former MIIT [Moscow Institute of Railroad Transport Engineers] dormitory.

But in spite of the many problems, the collective of the VIPK MPS is continuing its needed work for transport. Each morning a light panel at the institute's entrance is illuminated with the schedule of classes, and experienced commanders rush to the computer class and the robotics laboratory and hurry to grasp all the fine points of cost accounting and train traffic safety. But life poses new problems which will soon be reflected in the training programs.

#### **Metro Condition, Status Reviewed**

*18290172 Moscow GUDOK in Russian 1 Apr 89 p 2*

[Article by L. Kizilova: "What Isn't Heard in the Rustle of Banners"]

[Text] Moscow—According to the results of the All-Union socialist competition for 1988, the Moscow Order of Lenin and Red Banner Order Metro imeni Lenin was awarded the Challenge Red Banner, entered on the board of honor of the USSR VDNKh [Main Committee for Exhibition of Achievements of the National Economy]. A high honor.

**But won't the shadows of unresolved problems once again vanish in the glow of victory, and won't the concern and dissatisfaction of millions of Muscovites with the capital metro's operation be lulled by the rustle for show?**

My friend, a native Muscovite who has seen a great deal and knew that I was working on an article on metro escalator downtimes, was interested in learning: "And why are they standing idle?" Hearing that the main reason is major repair, he advised: "I would speak with the old-timers in Moscow—they remember how the metro worked in the old days, quietly, without any noise, beautifully... Now the escalators are making noise for some reason. But only a light rustling was heard then, like the highway under the wheels of a car in England... And there were no jams or idle escalators."

I do not know how the highway rustles in England, I have not been there. But I really hear the strained noise of our escalators every day. And I put up with the crush at the "Komsomolskaya" station every day. But who will be surprised by this now? The passages closed "temporarily"—for weeks and months—and the stopped escalators have become the usual scene.

The passenger accustomed to the pressure and the crush who rushes from the escalator struggle probably does not care about the reasons why the moving stairs have lost their miraculous properties.

At certain stations the escalators have actually been idle for half a year. For example, last year they were stopped for 5 months at the "Belorusskaya"-radial station and 7 months at the "Komsomolskaya" and Taganskaya" stations. As of 12 January 1989 (according to the Moscow boiler inspection report) 13 escalators were undergoing

major repair, some of them since June 1988 (the "Tretyakovskaya" and "Arbatskaya" stations). Strangely, there is not even an analysis of this sad statistic in the Moscow Metro Administration. I recall that in December I had to calculate the total periods of excess capital repair myself according to the reports on escalator service. And this is what I counted then: in 1987 this excess amounted to 496 days, and in 10 months of 1988 it totaled 247 days. And these tremendous losses are not surprising when you learn that the average time for an escalator in major repair is no less than 2.5 to 3 months. But the normative period is 28 days!

Incidentally, I managed to learn of this "secret" normative figure not at the plant repairing the escalators, not from the metro management, but in the "third circle" of searches—at the boiler inspection office. But they assured me at the plant that there weren't any such norms! As if the repair were not a routine technical operation but some act of magic!

Let us make it clear: the Moscow Experimental Electromechanical Plant is the only enterprise repairing the escalators. And just how is it doing this? Let us return to the figures once again.

From a conversation with V. Savosin, chief of the Passenger Transport Coordination Administration of the Moscow Soviet Ispolkom: "Here is the plan for repairing escalators last year, approved by the chief of the metro, Ye. Dubchenko. This schedule was coordinated with us. And here is the actual situation. Each quarter 17 units should have been repaired. They actually repaired five in the first quarter, five in the second quarter, 20 in the third quarter, and 19 in the fourth quarter. Altogether, 49. But the plan was for 64... Why are they making up 'fake' schedules?" Let us add that the schedule for this year still has not been drafted and approved by the chief of the metro.

V. Savosin's indignation is quite understandable: the plant is not carrying out the tasks that were set. But are there capabilities for this? The equipment is obsolete, the working areas are small, and the plant has not been renovated for more than 50 years! Fossilized semi-shops such as this in the center of the capital.

Some 10 to 15 years ago they proposed to set aside an underground area at the plant and to set up an independent subunit for repairing escalators. But all this has remained a dream until now. True, there was an attempt by the plant's deputy manager, V. Turubara, to establish a cooperative which in his opinion could shorten the repair period to 1 month. The proposal was interpreted in the metro administration in a peculiar manner. "Give the cooperative everything, provide it with everything—complete sets of equipment and spare parts. But it will fall apart later on," Ye. Dubchenko believes.

It is not surprising that the initiative somehow came to naught from such "support" all by itself, but the initiator considered it better to leave the plant and study escalator problems in a scientific research institute.

What did the metro management propose instead? To set up an independent subunit based on the underground area, to separate it from the plant and make it subordinate to the chief of the escalator service (who will now become the deputy chief of the administration). To improve the system of material support and providing complete units of equipment—essentially improving what exists, without creating anything new.

Renovation of the plant is proceeding in no particular hurry: on paper it should have been completed this year. Then they would have been able to repair up to 120 escalators per year. In point of fact, the second section has not been begun yet and the first section has not been completed. Coordination of the project is going through many levels of authority: it took all of last year to obtain a permit from just the Goskomgidromet [State Committee for Hydrometeorology] alone.

"Even if the work goes well, the plant will wait 7 or 8 years for completion of the renovation. We have an outrageous system!" complains V. Kopachkov, deputy chief for capital construction of the Metro Administration.

But after all, under the existing system of project coordination, a great deal depends on the persistence and incentive of specific persons and organizations—in this case, the management of the plant and the metro.

But what kind of a role does the Moscow Soviet play in monitoring implementation of its own decrees, for example? After all, the decision on renovation and the time for it were approved by the ispolkom as well. In particular, this refers to the resettlement of house No 5 in Krasnoselskiy Alley, which should have been vacated 4 years ago, inasmuch as it turned out to be in the space set aside for the renovation facilities.

I attempted to clear up some of these questions in my conversation with V. Savosin. It took a long time, but the answers essentially boiled down to the following: the metro is under the authority of the MPS [Ministry of Railways] and it must also ask them. "You can ask a lot of questions, including 'When will we go to Mars?' but I will not answer you, because I am responsible for coordinating passenger transport."

Vladimir Aleksandrovich politely directed me to the deputy chairman of the Moscow Soviet for transport, Ye. Kazantsev. But alas, I did not succeed in getting a meeting with him after 3 weeks of persistent telephone calls.

Well, this also is typical of the attitude of the capital's ispolkom employees toward the metro's problems. There is also the fact that the reports by the chief of the Moscow boiler inspection office, B. Maksimov, on the disastrous situation with the escalators, which were sent to the Moscow Soviet in 1987 and 1988, went unanswered as well.

N. I. Ryzhkov, chairman of the USSR Council of Ministers, said at a recent meeting with railroad managers: "All the country's metros, including the Moscow Metro, are unprofitable enterprises now. This is an obstacle to their development. We are thinking about transferring construction of the metro to local organs. And we are running into opposition. Everyone wants to have a metro, and correctly so, but they must think about who will pay to build it."

And only to build it? Maintaining this very complex facility, as we see, also requires considerable effort. So the contribution to this work by the sides concerned remains an open question. Nothing is clear here. Otherwise, V. Savosin would not be asking a journalist: "And what do you understand the Moscow Soviet's functions to be with respect to the metro?" I will not begin citing my own arguments in full here. But after all, it is obvious that the concern of city authorities should be present and felt not just in directives.

It is quite possible that my response will not satisfy the professionals. Incidentally, I was given a polite reproach in this conversation: "You realize that someone brought your attention to this problem simply by taking advantage of your incompetence in this matter..."

The majority of metro passengers are also incompetent in all the minute details and complexities of the metro. But what of it? It is unlikely to be fundamentally important to them who is running it. They simply want to get to work and hope that their buttons remain unharmed.

"Bold" dreams? Probably. I say this because there was no unity in January between the plant and the metro even in assessing the state of affairs. Ye. Dubchenko believed that the plant was fully up to coping with the plan for this year (repairing 57 escalators). But plant manager Zalivalov was not inclined to be hopeful: the actual capabilities were not taken into account. Shock work cannot be avoided.

True, in March both sides—both the metro's escalator service and the plant—assessed the situation altogether differently. I telephoned plant manager P. Zalivalov:

"How did the epic of separating the underground area turn out?"

"Nothing happened. The area remained at the plant. Though we are now being treated by the chief of the escalator service, S. Ivanov; he is the deputy chief of the Metro Administration."

"And just what has been changed?"

"The attitude toward us. The planning, supply, and operation of the dispatch service have been improved. We fulfilled the plan in January and February and we hope we will manage in March as well."

S. Ivanov confirms: Everything has stayed in its former place, only the chief of the escalator service (that is, he himself) was appointed deputy chief of the Metro Administration and they put the plant under his authority. As a result the repair has proceeded more smoothly.

This is truly a miraculous metamorphosis! And it turns out that only a trifle was required—they made a structural shift. It is a natural question: if everything is so simple, why couldn't steps have been taken before? Or doesn't the awakening from a deep sleep take place before a problem reaches a complete dead end?

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